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THE OPHTHALMIC RECORD

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The January number of the OPHTHALMIC RECORD will contain amongst others an original article by Geo. E. de Schweinitz, M. D., Ophthalmic Memoranda; one by L. Webster Fox, M. D., Conical Cornea, an historical review, together with a new non-operative method of treatment; one by Clarence A. Veasey, M. D., and E. A. Shumway, M. D., Simple Glaucoma in the Young, with a report of two cases. There will also appear Abstracts, Society Reports, Editorials, Personals and Items of Interest to the Profession.

THE RECORD particularly desires short practical papers on any subject connected with Ophthalmology. These will be published at as early a date as possible. It is understood that, unless otherwise arranged, original articles, when accepted, are contributed to the RECORD exclusively. Illustrative cuts will be made at the expense of the journal, and proofs for correction will be sent to authors when desired. Reprints with covers will be furnished at cost. The RECORD will be issued monthly, and each number will contain about 54 pages of reading matter.

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TABLE OF CONTENTS.

I. ORIGINAL ARTICLES.

PAGE

I. When Not to Prescribe Cylinders for Astigmatic Eyes, and When to Prescribe them for Non-Astigmatic Eyes. *By* **N. C. STEELE, M. D.,** *Chattanooga, Tenn.* 569

II. Is Double Operation for Senile Cataracts Justifiable? *By* **HOWARD F. HANSELL, M. D.,** *Philadelphia.* 573

III. Notes on Some of the Newer Methods and Drugs in Ocular Therapeutics, Methylbromid of Atropin, Dionin, Subconjunctival Injections, Jequiritol. *By* **ALBERT B. HALE, M. D.,** *Chicago.* 574

IV. A Deviometer Attachment to the Skeel Perimeter. *By* **DAVID W. WELLS, M. D.,** *Boston, Mass.* 584

V. Subconjunctival Injections of Sodic Chloride in Detachment of the Retina. *By* **Dr. CASEY WOOD,** *Chicago.* 585

II. REPORTS OF SOCIETIES.

I. Section of Ophthalmology, College of Physicians of Philadelphia . 588

II. Wills' Hospital Ophthalmic Society 593

III. Ophthalmological Society of the United Kingdom 594

IV. Colorado Ophthalmological Society 597

III. ABSTRACTS FROM RECENT OPHTHALMIC LITERATURE.

I. Astigmatism of the Cornea and Central Choroiditis in Myopia... 603

II. The Treatment of Diseases of the Lid Margins 603

III. Concerning the Superficial Punctate Exanthematous Keratitis Occurring in Measles 604

IV. Treatment of Recurring Hemorrhages of the Vitreous by Hypodermic Injections of Gelatinized Serum 604

IV. NOTES AND NEWS.

I. Personals and Items of Interest 606

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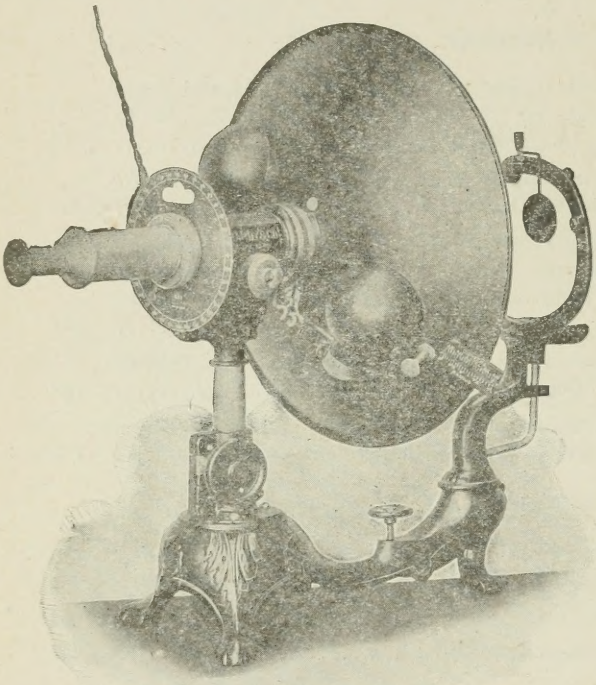

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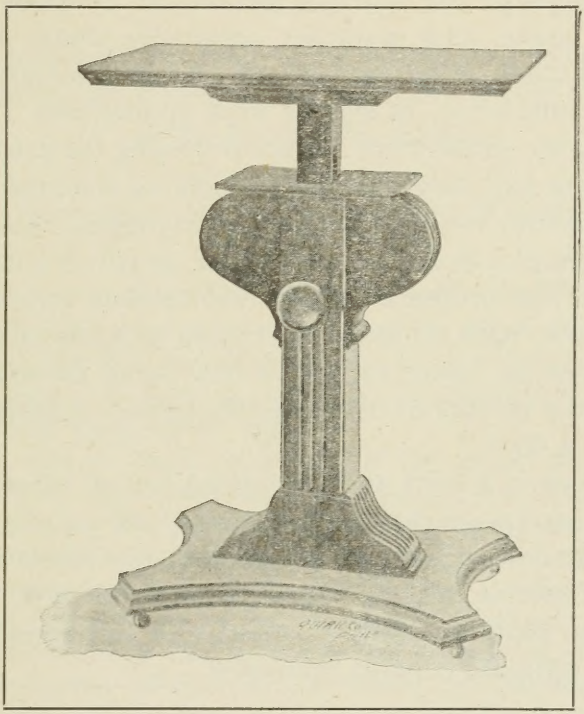

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THE
OPHTHALMIC RECORD
A MONTHLY REVIEW OF THE PROGRESS
OF OPHTHALMOLOGY.

CHICAGO, DECEMBER, 1903. VOLUME XII. No. 12. NEW SERIES

ORIGINAL ARTICLES.

WHEN NOT TO PRESCRIBE CYLINDERS FOR ASTIGMATIC EYES, AND WHEN TO PRESCRIBE THEM FOR NON-ASTIGMATIC EYES.

BY N. C. STEELE, M. D.,
Professor Diseases Eye, Ear, Nose and Throat in Chattanooga (Tenn.) Medical College.

I.

When Not to Prescribe Cylinders for Astigmatic Eyes.

Possibly the majority of us who prescribe glasses think that all astigmatic eyes that require glasses should have their astigmatism fully corrected. However optically true this general rule may seem, it is not good practice in all instances.

For cases of simple astigmatism of low degree, and of astigmatism of low degree combined with a low degree of spherical error, requiring lenses for distant use or for both distant and near use, the general rule of correcting all the astigmatism holds good.

The exceptions to this general rule, of which I shall write briefly, are those cases requiring for near use lenses of rather strong spherical power, and also those cases that, according to the usual tests, require a spherical power combined with a cylinder, axis horizontal.

Of course, the majority of the persons that furnish these exceptions to the general rule are presbyopes, especially hypermetropic presbyopes.

THE REASON.

We know that light rays passing obliquely through a positive spherical lens are not all converged to a point. The effect is similar to light rays passing through a sphero-cylindrical lens held with its surface at right angles to the source of the light rays. In reading or

doing other near eye work we nearly always look a little obliquely downward through our spectacle lenses. Hence our spherical lenses have a sphero-cylindrical effect producing, in this near use of them, mild artificial astigmatism.

The light rays, passing from the printed page obliquely through a spherical lens to the eye of the reader are converged more by the vertical than by the horizontal meridian of the lens. That is, the converging power of the vertical meridian is increased, thus producing the effect of a sphero-cylinder with the cylinder axis horizontal. The converging effect of the horizontal meridian is neither increased nor diminished.

THE PROOF.

You can prove the truth of this last paragraph in a moment. If you are emmetropic, put a —.1 D lens in your trial frame and before one eye, shutting the other eye. Hold just in front of the trial frame a + .1 D spherical lens and look at an astigmatic wheel-card. You will see all the spokes of the wheel plainly. Now begin to tilt the + .1 D lens vertically; that is, on its horizontal axis. At once you notice the horizontal spokes begin to grow dim, while the vertical ones remain plain. The more you tilt the plus lens the dimmer become, first the horizontal spokes and then those near the horizontal ones, and soon only the single vertical spokes above and below remain plain. The effect is more pronounced if you use a stronger plus lens. As soon as the horizontal spokes begin to grow dim hold a —.25 D cylinder, axis horizontal, in front of the plus lens, but parallel to the minus lens that is in the trial frame. This at once clears the wheel, bringing out all the spokes plain and black.

As you increase more and more the tilt of the plus lens, you will need stronger and stronger minus cylinders, axis horizontal, to neutralize the increasing converging effect of the vertical meridians of the tilted plus lens, and thus make clear the whole wheel. This experiment can be varied in many ways, but the general result will be the same. If you are not emmetropic, put into the trial frame the proper lenses to make you emmetropic, and proceed as before directed.

THE PRACTICAL LESSON.

The practical lesson to be learned from all this is that many cases with low degrees of astigmatism with the best meridian horizontal, or nearly so, should not have the astigmatism corrected, at least not fully corrected, in lenses intended for near use only.

I may add that this does not apply so appropriately to lenses that are to be used for all purposes, such as are generally worn by persons under forty years old. Nor does it apply to simple cylinders of low degree, nor to lenses in properly selected pantascopic frames.

As will be readily seen, my suggestion applies especially to cases in which the usual refraction tests indicate the near use of sphero-cylinders with cylinder axis horizontal, because it is chiefly the increased converging power of the vertical meridians of spherical lenses and the spherical part of sphero-cylindrical lenses as used in near work that produces the condition here discussed. That the suggestion applies to strong cylinders with axes horizontal will be at once understood and needs no elaboration.

I estimate that a + .1 D spherical lens as usually worn for reading and in the usual spectacle frame produces a cylindric (astigmatic) effect of about .13 D, and that a + .3 D sphere produces a cylindric (astigmatic) effect of something like + .25 D to + .50 D. The amount of this effect of these spherical lenses depends on the relative positions of the head and book of the persons wearing the spectacles.

In prescribing near lenses for eyes that are astigmatic with the best meridian horizontal, I am guided by the foregoing suggestions and estimates. If the astigmatism is of low degree with best meridian horizontal, I omit entirely the cylindric element of the lens. In high degrees of astigmatism I omit a part of the cylindric element, thus under correcting the absolute amount of astigmatism shown to exist by the usual tests. In such cases I depend on the spherical lenses or the spherical part of the sphero-cylindrical lenses to correct all or a portion of the astigmatism; that depending, of course, on the amount of the astigmatism.

For instance, if I find an eye with astigmatism of .13 D with best meridian horizontal, that needs a + .75 D spherical lens for reading, I prescribe the + .75 D and ignore the astigmatism altogether.

If I find an eye with astigmatism .25 D with best meridian horizontal that needs a + 1.50 D sphere for near use, I give the + 1.50 D sphere lens, omitting any cylindric element. If the last case had double the astigmatism I would correct half of it, prescribing $+ 1.5 \bigcirc + .25^{180}$.

If an eye is astigmatic .50 D with best meridian horizontal and needs a lens + 3.D for near work, I prescribe the sphere only.

II.

Cylinders for Non-Astigmatic Eyes.

When there is hypermetropic astigmatism, simple or compound, with the best meridian vertical and requiring, of course, a cylinder with axis vertical to correct it, the full astigmatic correction should be given, even in mild cases. In those cases of astigmatism with best meridian vertical that require sphero-cylinders for near use the cylindric power should be increased over the amount of actual astigmatism present, the increase to be governed by the same general estimates given for the opposite condition, except you increase the cylindric power here, whereas you decreased it there.

Again, in prescribing strong plus spherical lenses (+ 3.D to + 6.D) for near use by eyes having no astigmatism, you can with advantage add a cylindric power of + .25 D to + .75 D axis vertical, because of the fact that looking slightly downward at the printed page through such strong spherical lenses a cylindric (astigmatic) effect is produced, requiring for its correction a cylinder with axis vertical. Much depends in these cases on the relative positions of spectacles, head and book of the reader.

I have been speaking of cases in which plus cylinders, spheres, and sphero-cylinders are indicated by the tests, but exactly the same suggestions apply to cases that require minus cylinders, spheres and sphero-cylinders.

When I speak of "horizontal" and "vertical" meridians and axes, I include with them the meridians and axes that are within a few degrees (say 5° to 10°) of these cardinal lines, the amount of obliquity determining to some extent the nature of the lens prescribed.

In writing this article I have had in mind the users of spectacles, and spectacles of the usual kind.

I know that eye glasses are often worn with the tops of the lenses tilted slightly forward, and this changes the situation, as is plainly indicated, and needs no discussion here.

I have thought best not to enter into minute details, because I think that every refractionist can easily apply my suggestions to the varied cases that he has to deal with. I am aware that the advice herein offered does not have a wide range of application, but I am sure that in properly selected cases it will be helpful.

So far as I now remember, I have never seen in any book or journal this subject discussed. At least, I have not noticed that special attention has ever been called to it.

CHATTANOOGA, TENN.

IS DOUBLE OPERATION FOR SENILE CATARACTS JUSTIFIABLE?

BY HOWARD F. HANSELL, M. D.,
PHILADELPHIA.

The correct answer to this question can not be given without consideration and I bring the subject to your attention with the hope of hearing an expression of opinion as well as to state my own views. A review of written authority reveals but little information. The question is usually dismissed, if discussed at all, with the bare statement that double operation should not be performed, and this dictum is in most cases an expression of the writer's practice rather than a decision reached after careful thought.

The reasons that suggest themselves against the procedure or its contraindications are the danger of infection during or after operation, the presence of lachrymal disease, constitutional weakness engendered by nephritis, diabetes, syphilis or other dyscrasia, hemophilia or any idiosyncrasy, and finally the patient's unwillingness. It is also claimed that ignorance of the patient's mental and physical stamina and of his recuperative powers is also a contraindication.

I believe the double operation is justifiable under the following conditions: That the vision of each eye is so diminished that the patient is debarred from his usual occupation and is consequently unable to earn a living; that both cataracts are ripe enough to warrant extraction, or, in other words, that either lens might be operated on with equally good chances of a favorable result; that nothing in the patient's mental or physical state might militate against recovery; that the cataracts are not secondary to local or general disease; that the extraction of the first lens was accomplished without accident or indications of complications should operation on the second eye be attempted.

The value of the procedure is undoubtedly great in carefully selected cases. Its advantages are that the patient is subjected to one operation instead of two, his recovery occupies ten days instead of twenty, he has binocular vision and the correction of the refraction is simplified. I think the danger of subsequent inflammation is not intensified and that of sympathetic ophthalmitis is lessened. Recovery is not prolonged. The after treatment of both eyes does not essentially differ from that of one eye. The pain is no greater in

Read before the Section on Ophthalmology, College of Physicians, Philadelphia, November 18, 1903.

the double than in the single operation and the process of healing of the wound of the one eye is not, as far as I can judge, at all hindered by operation on the other eye. The surgical shock is hardly worth considering. The real suffering consists in the apprehension and nervousness preceding and the confinement to bed following operation—practically the same whether both eyes or only one is involved. The awful calamity of failure of both operations is no greater because the operations were performed at one sitting than if one failure had preceded the other.

I have performed the double operation five times only, yet the subsequent history of these cases inclines me to increase the number as suitable opportunities arise. The first case was that of a woman eighty-five years of age, who urged the double operation that she might have the use of both eyes in the shortest lapse of time; the second, the details of which are not at hand presented nothing noteworthy; in the third, extraction of the one lens was so smooth and satisfactory that I yielded to the patient's request that the second eye should be operated on; the fourth and fifth were unmanageable patients, aged seventy and eighty-three years, respectively, for whom general anesthesia was necessary. In order to avoid delay and the annoyances incident to the operation on the first eye, both lenses were extracted in each patient. In all the cases recovery ensued without complication and the history of the healing contained no intimation that the conditions would have been improved had the procedure been limited to the extraction of the lens from one eye only.

NOTES ON SOME OF THE NEWER METHODS AND DRUGS IN OCULAR THERAPEUTICS, METHYLBROMID OF ATROPIN, DIONIN, SUBCONJUNCTIVAL INJECTIONS, JEQUIRITOL.

ALBERT B. HALE, M. D.,
CHICAGO.

There are two good reasons why, in diseases of the eye, we are inclined to resort to new drugs and methods different from those well tried and commonly adopted; one is that, in addition to the fact that classical treatment does not always cure, we sometimes tire of a routine of boric acid, zinc, cocain, atropin or eserin and are, therefore, incited for the novelty of it to see whether another drug will not accomplish more. The second reason is that conjunctiva, cornea and intraocular tissues lend themselves most readily to local drug action,

and the effect or influence upon them of minute doses topically applied can here be more carefully studied than on any other organ or tissue in the body, and that, too, with but little danger of general absorption or systemic poisoning.

It is difficult to keep trace of all or many of the newer pharmaceutic preparations, but most of them soon lose their identity, or become merely the favorite of some practitioners while not at all displacing the older and essentially important drugs.

At intervals, however, we do find a novelty which, when carefully tried, proves a genuine addition to the physician in his efforts to cure. In practice, one's own experience must be the best guide to the continuance or abandonment of a drug or method, and I have in my own work finally and permanently adapted the following substitutes or supports to older therapeutic resources.

METHYLBROMID OF ATROPIN. (MERCK.)

My attention was first called to this drug by a report of Vaubel's in the *Wochenschrift fuer Therapie und Hygiene des Auges* for October 9, 1902. The drug contains 20.84 per cent bromid, is soluble in water, weak alcohol, but insoluble in strong alcohol, aceton and chloroform. Its atropin constituent is about that of the sulfate, and may be used in the same strength, that is, a 1 per cent solution. Why it is that atropin combined with such a base has a similar but shorter action I can not say, but there seems no doubt from Vaubel's experiments that even its systemic effect is less pronounced. Since then that tireless expounder of new drugs, Darier, has written of its use in *La Clinique Ophtalmologique*, 1902, No. 21, largely in confirmation of the German.

I have not carried my own experience with the drug so far as to tell its effect on heart, pulse or other internal organs, being quite willing to accept the conclusions of others on the matter, but I have been fortunate enough to test its effects on a rather large number of cases of both inflammatory and refractive character, and the more I use it, the better I like it, and the oftener do I resort to it as a routine measure.

Any analog of atropin serves two purposes: first, to act on the iris, and, second, to paralyze the ciliary muscle. If the first is more important, we call it a mydriatic; if the second, a cycloplegic, and we seek these effects either to overcome inflammation in the uveal tract and to keep the eye at rest, or to get a view of the fundus through a larger pupil, or to destroy accommodation so as to estimate the true refractive condition of the particular eye under examination.

I can not say how many new drugs have been during the past decade offered to us for one or the other of these purposes, but nothing seems to act so substantially as a cycloplegic as atropin sulfate; duboison is less used; scopolamin (or hyoscin) takes second place, while homatropin, trusted by some, is distrusted by many, and I dare say it is rated more as a temporizing drug for our hurried American life than as a genuine cyclopegic. As a mydriatic it is to be feared; it is of too prolonged action, it is inferior in practical application even to cocain, and it is, in my opinion, completely superseded by euphthalmin for all diagnostic tests. It remains to be seen whether any drug can be compared with atropin in radical effect, while at the same time allowing us to avoid the two great disadvantages of the sulfate, slowness of action and unnecessarily prolonged action. For this new combination of atropin, the methylbromate, it is claimed that its action is quicker and that its influence is noticeably less prolonged than that of the sulfate. I suppose I have used it in over 500 cases of every character, and I must say at the outset that in genuine iritis I do not trust it; partly because there is no need of temporizing—we know what the sulfate will do—we must carry on its action for days and days, and to experiment when the tissues of the eye may suffer immediately therefrom is folly. I have no proof that it will not act as thoroughly, but I have proof that it will not cover such a great length of time, and I therefore discard it in these cases. Conditions are different when we treat corneal inflammations where the iris is only irritated in sympathy but not at all inflamed. Here I have found the methylbromid very serviceable, as it dilates the pupil well, keeps the eye at rest, and if it be decided that continued mydriasis is unnecessary, the iris may then be released within a few hours. This brings us close to the question as to how radical an influence the drug exerts upon the ciliary muscle, because in threatened iritis a weak drug will be misleading or even dangerous, and valuable time may be lost if we do not at once affect the iris to its fullest extent.

My experience began with a patient, a young woman of 22, for whom I had prescribed glasses two years ago under full atropin cycloplegia. This time she had suspicious symptoms of a mild uveitis in one eye, and partly to make sure of my diagnosis, partly to confirm my earlier prescription of lenses, I used the methylbromid 1 per cent solution in each eye twice during twenty-four hours. To my surprise, the refractive result was exactly the same as it had been under the sulfate of atropin two years ago. I have not, however, had such reports in all other cases in which comparisons have been made,

for the effect of the sulfate seemed to be somewhat stronger than that of the methylbromid, and I have, therefore, in my own routine, established the rule that the sulfate must be used for the most accurate estimation of the refraction. I can not give statistical tables of comparison, but I am convinced that this newer salt ranks below the sulfate, is equal to scopolamin (1.500) or hyoscin, and is superior to homatropin.

As to the onset and duration of its action, I can be more precise. The following tests illustrate this point, and can be repeated with probably the same conclusions as often as may be wished. Two boys, aged nine and seven, were to have their eyes examined. Into each left eye I dropped at once two drops of 1 per cent solution of atropin sulfate. At the same time into each right eye I dropped the same quantity of the same strength of the methylbromate. In the elder boy there was developed, after twenty minutes, a slight mydriasis of the left eye; the right eye seemed to be behind its fellow about five minutes till full mydriasis was reached in forty minutes (in the left eye there was discovered a slight congenital cortical cataract, but I think this condition had no influence on the mydriasis). In the younger boy, beginning mydriasis was evident twenty minutes after instillation and no real difference could be detected between either eye. So uniform have been my findings in this respect that I can acknowledge no difference in rate of action that can be trusted as a guide. Individual idiosyncrasy will explain any variation that may be detected. The case is quite otherwise, however, when we examine the duration of the mydriasis. The following will serve as a type of my experiments. Into the eyes of a healthy young woman of twenty-two I ordered one drop of the 1 per cent solution twice a day. There was full mydriasis and probably complete cycloplegia the next morning. After twenty-four hours there was some accommodation; on the second day she could again read. In another case, with some fundus changes which I was studying, I obtained mydriasis and cyclopegia by three drops fifteen minutes apart at the end of one hour; the next day (twenty-four-hour interval) mydriasis was nearly gone and accommodation seemed restored. Here again I have made no statistical table, preferring to show clinical experience rather than too precise an estimation, but this result has been so frequently repeated that I have learned to depend upon the influence of the drug for not more than twenty-four hours, or, in another sense, I am warranted in assuring a patient that at the most he will be debarred from work only two days, while it is possible that at the end of one day the paralysis

of accommodation will be noticeably lessened. This makes the drug much quicker in its disappearance than the sulfate, twelve to twenty-four hours quicker than scopolamin, and somewhat slower than homatropin (with or without cocain).

My experience convinces me, then, that the methylbromid of atropin used in a 1 per cent aqueous solution is (1) a trustworthy mydriatic and a good cycloplegic in refraction; (2) an untrustworthy mydriatic in iritic, but a comfortable one in corneal inflammations; (3) its action begins at about the same time as the sulfate, but has disappeared from two to six days before the latter; (4) it should rank below the sulfate for complete action, but equal or above all other drugs.

DIONIN.

Wolffberg (Breslau) not quite four years ago experimented with this drug, which is a chlorid of ethyl morphin, and had been previously used in internal medicine as a substitute for the sulfate of morphin and for codein. It is easily soluble in water. His first observation was confined more particularly to the rather unexpected action upon the lymph circulation, and to one who applies it for the first time this action is really startling. The lids grow red and swell, the conjunctiva becomes puffy, edematous, and if the patient is very susceptible this swelling is so extreme that the cornea is barely seen through the pit in the center of the conjunctiva. The sensation is at first painful, burning; then a feeling of warmth comes on, followed by an analgesia that may subdue the pain even of a keratitis or iritis. This analgesia may last an hour or less, but all signs and symptoms disappear, to leave the eye as it was before. Accidental sneezing noticed in some cases is due to escape of some of the drug into the nose.

There is no doubt about the startling effect of dionin. It is ophthalmologic fireworks, but the practicing physician is more interested in learning what he can add to his means of cure than in making an impression upon his patient. Wolffberg's attention was called less to the analgesic (not anesthetic) effect of dionin than to its influence on the lymph circulation, but Darier noticed and took advantage of the former. Wolffberg's idea was to influence nutrition, Darier's to subdue pain and to supplement the action of other drugs. Any one reading Darier's "Ocular Therapeutics" will be led to wonder and will be inclined to blame himself that a drug so valuable, so efficacious, so indispensable, has been so little known outside of a few French and German clinics.

I have had no inclination to test Wolffberg's claim about dionin

after operations on the eyeball, although I am willing to believe that it may encourage primary union of corneal section, nor do I wish to discredit Darier's enthusiasm for the drug in so many conditions, but my own experience leads me to give it a much more modest place, and while I consider it an undoubted addition to the treatment table, I am not yet convinced that we should suffer from lack of it.

The unique effect of dionin is the lymph congestion of the conjunctiva, and I have no doubt but that this encourages the absorption of drugs like atropin and eserin so that they may act quicker and sometimes more powerfully upon the iris. I may illustrate this in the following case: A young woman of twenty, with a central corneal abscess, showed a decided iritis with pain, which atropin alone (even in crystals) was unable to subdue; the addition of a 5 per cent watery solution of dionin to a 2 per cent atropin solution checked the pain and encouraged the iris slowly to contract, but the adhesions were so firmly united that the synechiæ could not be severed. So much has been said by Darier and Wolffberg on this point that I have no right to report my experiences further. The disadvantages of the drug lie in the fact that a tolerance is very soon established, after which the drug seems relatively inert. But does this lymph congestion result in any permanent good? I myself can not say that it does.. It is altogether transient; if we find certain conditions that will be relieved by temporary stimulation of the circulation, then we may for once or twice resort to dionin, but no permanent curative power has been seen by me. The drug is simply an adjuvant to others, helpful in emergency, to be sure, and for that reason to be retained, but not trustworthy, like cocain. I do not overlook such reports as that of Grandclement, for instance, who, in the *Bulletin de la Société de Science Medical de Lyons* for July, 1902 (cited in *Archives of Ophthalmology*, September, 1903), claims that dionin cured a detachment of the retina, but this is such an extraordinary exception that it proves nothing and can not displace the older methods of treatment, or disturb the view of the skeptic concerning the efficacy of any treatment whatever.

The same argument applies to the use of dionin as an analgesic. Dionin is hardly a local anesthetic—its action is more central; it subdues pain, but not to a marked degree does it destroy local sensation. I have been pleased with its temporary use to calm a patient suffering from an iritis, or iridocyclitis, or bulbar pain in general, but even then, though it may allow us once or twice to avoid the morphine needle, it finally proves useless if the pain is not checked by other means.

Certainly, then, let us retain dionin, as powder, as 1 per cent or 5 per cent solution, alone or with another drug, but let us not forget that it is always the other drug on which we must rely.

SUBCONJUNCTIVAL INJECTIONS.

It is a little over ten years now since this method was proposed as a means of attacking locally different ocular inflammations. At first, mercuric salts were used under the assumption that an antiseptic could thus be more directly applied to an infective process, but from laboratory and clinic this theory received a denial and the simple antiseptic explanation was abandoned, although experiment was still directed toward finding some drug that would intensify or hasten the mechanical influence of the simple injection.

The discussion of the method is detailed in "Ohlemann's Ocular Therapeutics" (Oliver's Translation, P. Blakiston's Son & Co., 1899, page 27, et seq.) and in *Die Neueran Augenheilmittel,* Ohlemann, Wiesbaden, 1902, p. 58. The Germans seem to have lost enthusiasm, although occasionally elaborate reports of clinical cases (*Klinische Monatsblatter fuer Augenheilkunde,* December, 1902, p. 427, and October, 1902, p. 247—Hetol) show that the method is still in use. In the seventy-fourth session of the Congress of Naturalists and Physicians, Wessely (Würzburg) has an elaborate examination of the physiologic action and concludes that "this is due neither to direct osmotic influence of the internal fluids of the eye, nor to stimulation of lymph circulation or attraction of leucocytes, but that the injections are a local irritant, producing in the vessels of the ciliary body a hyperemia that irritates the vascular nerves of the conjunctiva; thereby the vessel walls are rendered more permeable and there is secreted an aqueous richer in albumen." This explains for him (the increase of serum) the favorable action of this injection upon certain diseased conditions.

Now, in my own experience I have developed an unavoidable fondness for subconjunctival injections, used especially in non-suppurative diseases of the uveal tract, such as (rather acute) plastic choroiditis. My first trial was some years ago, in a lad of eleven with progressive myopia (never corrected) and decidedly reduced vision, owing to patches of choroidal exudate. I don't deny that he had the classical pilocarpin sweat treatment, but I never, with such treatment alone, saw such rapid removal of exudate, such clearing of hazy vitreous nor such gratifying improvement of vision; so that the lad, at the end of two weeks in hospital was returned to his home wearing glasses and able to begin school work that he had never attempted before.

The improvement has been permanent, so the parents write. In another case, that of a man over fifty, who two years after an iritis developed a decidedly acute choroiditis, the same pleasing influence was observed. Rapid removal of vitreous cloudiness, rapid improvement of vision, and sharp limitations of choroidal pigment patches to the focus of earliest attack.

I am not giving a series of cases because the literature already has an abundance, nor does my enthusiasm carry me so far as to place much dependence upon the method in corneal inflammations, although many remarkable cases have been reported of decided check to infectious processes. These remain still subject to individual experiment and experience. I am sure, however, that subconjunctival injections exercise an undoubted, undeniable influence upon intraocular non-infectious inflammations; they encourage the absorption of opacities in the vitreous and of deposits within choroid and retina, and the method is of decided value to our curative agents.

The only question in my mind has been to decide upon the best way of applying the method. The earliest theory insisted upon using a solution of mercuric bichlorid for its excessive irritant quality and for its specific antiseptic and even anti-syphilitic power. This has been abandoned and for it was substituted the simple sodium chlorid solution, either 2 per cent (relatively painless) or higher strengths, progressively painful.

Pflügger advocated hetol for its supposed antitubercular influence. I have myself tried every combination suggested. Mercuric bichlorid I renounced at once as too painful and as of no specific value. Sodium chlorid solutions stronger than 2 per cent are also too painful, and I saw no advantage from them. Hetol I abandoned in any strength; the reaction was too great and the danger of subconjunctival adhesions (of which I have produced not a few) too imminent. I had restricted my method to the 2 per cent sodium chlorid, as painless, harmless and stimulant enough* until I tried the 1:3000 and 1:5000 cyanid of mercury solution to every fifteen drops, of which I, at Darier's suggestion (Ocular Therapeutics—Blakiston, p. 29) added two drops of a 1 per cent solution of acoin. This combination I have steadily used and see no reason to depart from the

*(Since writing the above I have read a report by Senn (Wyl), original in *Archiv fuer Augenheilkunde,* XLVIII, 3, concerning subconjunctival injections of oxycyanate of mercury 1.5000 (Darier) in central choroiditis of myopes with astigmatism. In forty-two cases thus treated he improved vision on the average of 50 per cent, and he is, therefore, an enthusiast for the influence of the method on choroidal lesions.)

habit. The criticism has been made that subconjunctival injections alone will not cure; that mercury and the pilocarpin sweat in choroidal inflammations, or the heat and atropin in corneal lesions are still indispensable. Even supposing this is so, we can not always predict success with any treatment, and the injection does not confuse the classical treatment, but whoever has had the pleasure of seeing a vitreous opacity begin to disappear after one or two injections when it seemed to remain stationary in spite of mercury or pilocarpin, or who ever has seen a corneal injection yield as if by magic (Wilder) after even one injection, when the eye had before been doomed to enucleation, is wrong in denying an active local influence not obtainable in any other way. Intraocular suppuration is a contraindication, according to most observers, and I have therefore no experience to offer, as I avoided treatment in that condition.

An incidental result for which these injections may be used is to encourage the absorption of subconjunctival blood clots, produced either by a blow or by rupture of a small vessel. I have repeatedly hastened the disappearance of such clots by injecting fifteen drops of a 2 per cent salt solution, with the advantage of having no pigment stain behind.

JEQUIRITOL.

Jequiritol represents the application of the modern laboratory idea to botanic, as well as to therapeutic science. Römer (1902), reasoning by analogy from the results obtained in producing the toxin and antitoxin serum in diphtheria (and other diseases), analyzed the jequirity bean by the same methods, and with Merck's assistance developed the jequiritol extract with its accompanying serum that seems, locally applied, to neutralize the irritant property of the extract. Jequiritol is not an alkaloid like strychnin, nor is it abrin in solution; it is more complex, and its effect on the body is tested, as are those of other organic poisons, while the serum is developed and tested in the same way.

Jequiritol is furnished by Merck's laboratory in four strengths with a definite quantity of serum in a box containing a pipette and printed directions for use. No. 1 strength is practically non-irritating. No. 4 is excessively irritating. It is intended to supplant jequirity (powder or solution) or abrin, and is to be used to clear corneal opacities, chiefly those due to trachoma. The drug is expensive.

I wish to report only six cases in which a thorough test was made, for without systematic and persistent use no report is of value.

Case I.— Girl, fourteen; trachomatous family; has long standing trachoma of both eyes, the cornea being deeply affected. The cornea of the left eye had cleared under well tried treatment, but nothing served to influence the pannus nor the steaminess of the cornea in the right eye. Jequiritol No. 1, then No. 2, No. 3 and No. 4 were used according to directions, with no result or reaction whatever. There seemed an immunity.

Case II.—A man of sixty, with trachomatous pannus of both corneæ, the disease being of years' standing. The conjunctivæ were completely usurped by scar tissue. Vision was so dulled in each eye as to prevent any actual recorded test. He received the treatment systematically up to No. 4, but with this I was obliged to resort to the serum, which quickly relieved the pain, but No. 4 could not be tolerated. Yet after prolonged trial of the drug in each eye, with which there was produced the expected reaction, no evident improvement could be detected either in vision or in corneal transparency. I subsequently performed a complete peritomy in one eye, with no functional success, and have been obliged to return to silver solution and the copper stick to get any benefit from treatment.

Case III.—A woman of thirty-four, with soggy conjunctiva and pannus (trachoma) was treated in hospital for two weeks, according to directions. At first I insisted on the need of performing an external conthotomy, but improvement in sensation and vision was so rapid that she was finally dismissed, largely relieved of her symptoms, though the conjunctiva was still trachomatous. Here vision improved from fingers at two to three meters to about 6/24.

Case IV.—A man of fifty, not quite as bad as Case II. I used no stronger than No. 3, as reaction was then evident and rather painful. Improvement was noticeable objectively, but the final outcome in vision and corneal clearness can not be given, as he sent me word that he was feeling well and would go to work again.

Case V.—Young woman of twenty-one, trachomatous conjunctiva but no real pannus; slight marginal keratitis. V 6/24 in this (the left) eye, the right not being affected. Here No. 2 produced a reaction, No. 3 was painful. The corneal margin healed and V improved to 6/15.

Case VI.—Man, twenty-seven. Long standing corneal opacity (not leucoma) cloudiness, from a keratitis in childhood. V. 6/60, no pain. Continued jequiritol gave no result.

The present cost of the drug is my best reason for not having a greater series of cases, but these six are typical of what may be ac-

complished, and probably with greater experience in selecting cases I can raise my proportion of improvement far above 50 per cent.

I dare not claim the Jequiritol is a complete substitute for better known methods, nor that it will revolutionize the treatment of trachoma or vascular keratitis, nor check the progress of the Roentgen ray, but it certainly has remarkable power, and the fact that Römer for its introduction was at the last Heidelberg Congress awarded the Graefe prize is proof of the esteem with which it is held in Germany. Should it prove a success it will show how much closer to a scientific method our therapeutic means are advancing, and how much greater precision our local agents possess.

A DEVIOMETER ATTACHMENT TO THE SKEEL PERIMETER.

DAVID W. WELLS, M. D.,
BOSTON, MASS.

The measurement of the angle of a squinting eye by means of the perimeter is, I believe, too well known to need explanation. My method has been to get the patient to fix the center spot, while a lighted candle is carried along the arc 'till the corneal reflection is in the center of the pupil of the strabismic eye. This is quite satisfactory with adults, but it is difficult to keep a child fixing an uninteresting spot, while such an attractive object as a lighted candle is moving about; and it is the *young* patient concerning whom something like exact measurement is needed, especially if one is attempting any corrective treatment. Dr. Black's modification of Mr. Worth's instrument suggested to me the idea of utilizing the Skeel perimeter as a deviometer. A hole is drilled into the white fixation spot, of just the same size as that in the movable arm which receives the different colored buttons. A miniature incandescent lamp (known to the trade as a "telephone receptacle") is shellaced to one of the buttons, which luckily is of the same diameter. This snaps into the hole at the fixation spot. Another lamp fastened to another button in the same way, snaps into the movable arm. The switch, which is out of sight under the table, is a "strap key 3 point connection." The wiring is so arranged that the central lamp burns as soon as the current is turned on. This the child fixes, the other lamp (not lighted) being moved to approximate the angle of the deviation. When the key is pressed the fixed lamp is extinguished.

and the movable one is lighted. The position of the reflexion is easily noted before the child has time to change his fixation. Releasing the key again lights the stationary one, and extinguishes the movable one. A few trials suffice to produce a reflexion in the center of the pupil. The low voltage current is obtained by a rheostat from a wall plate. Presumably a small dry cell battery would answer as well. The wiring is slack enough to allow slipping both lamps over the arm of the perimeter, and it requires only a minute to attach or detach them. When not in use, the cable of wires, with lamps dangling, is hung out of the way under the table. Meyrowitz will furnish the deviometer attachment to perimeter.

SUBCONJUNCTIVAL INJECTIONS OF SODIC CHLORIDE IN DETACHMENT OF THE RETINA.

TRANSLATED AND ABSTRACTED BY DR. CASEY WOOD, CHICAGO.

This remedy was not particularly successful in seven cases in which it was employed by Armando Tarducci* (Florence). It was Lodato who first recommended the procedure, in 1895—a translation of his article having appeared shortly afterward in the *Annals of Ophthalmology*. The following year he published a further series of cases, announcing as his conclusions that subconjunctival injections of sodium chloride cause more or less improvement (and even entire replacement) in recent detachment of the retina, with a corresponding increase in central vision, and enlargement of the field. He claimed that this improvement is rapid, appearing after the first or, at least, after the second and third injections. If the first two or three injections are ineffectual it is useless to continue them, as later injections have no effect upon the detachment. The injections, said he, are equally effective in all forms of detachment, from myopia as well as from trauma, but they are less active in cases with much cloudiness of the vitreous. They are very slightly painful and cause no inconveniences of any kind.

Mellinger, of Basle, reached the same conclusions about the same time; that injections of sodic chloride are effectual in recent and partial detachment of the retina, while they are useless in old and total cases. In 1896, Dor reported to the Société Francaise d' Ophtalmologie the results in fifteen cases treated by application of

* Le iniezioni sottocongiuntivali di cloruro di sodio nel distacco di retina. *Annali di Ottalmologia,* Fasc. 9, 10, 1903, p. 650.

Heurteloup's leeches, cauterization of the sclerotic, continued rest in bed, and injections of 20 to 30 per cent sodic chloride made under the conjunctiva or into the capsule of Tenon. In nine of these cases the retina had become completely reattached and remained in place for at least two years; in one case there was a relapse after seven months. The other five cases were failures. The results on the whole were good. De Wecker at this meeting of the Society denied any efficacy to injections of 2 and 3 per cent sodic chloride.

Schiess-Gemuseus published in 1896 two cases successfully treated by subconjunctival injections of sodic chloride combined with diaphoresis, mercurial frictions and rest in bed. Marzoli, in 1889, reported improvement of vision and in the visual field in six cases.

Encouraged by these favorable reports, Tarducci gave the injections a trial in his clinic. He used sodium chloride solutions in strengths of 2, 3, 4, 5, 10 and 20 per cent. He injected the fluid under the bulbar conjunctiva and always at points corresponding to the detachment, although no importance has been ascribed to the site of the injections by others. Five minutes before the first injection he instilled 3 per cent cocain, or sometimes anesthesia was obtained with acoin, but without any advantage over the cocain. The results were completely negative in two of the seven cases, and in the others the improvement gained was but trifling.

In one of the unsuccessful cases the detachment was of only fifteen days' standing. After four injections both central and peripheral vision were decidedly worse than before. The other unsuccessful case was of long duration, and vision diminished after four injections.

In the others, one was a detachment five months old. In this case four injections were made; central vision showed no benefit although there was a slight enlargement of the field. In the second case the detachment was only eight days old. The patient left with V. the same, but the limits of the field were almost normal. In the third case, the detachment being sixteen days old, there was slight improvement in central vision, but there was no change in the field. The fourth was a case of detachment about fifteen days old, and there was slight improvement both in central and peripheral sight. The remaining case was one of detachment that had existed at least twenty days. The patient in coming up to the city had to ride for twenty-five miles in a wagon, jolting over rough roads. This had aggravated his condition and he entered the clinic with his visual field much reduced and no central vision. Rest alone was sufficient

to bring about an improvement, which continued for five days, after which it remained stationary. After three more days there was no further improvement in field, so a 3 per cent solution of sodic chloride was injected, followed by three other injections at intervals of four to five days. After each treatment there was always a slight enlargement of the visual field and sometimes a greater central acuity, but these lasted only two or three days, after which the eye resumed its former condition. In this case the detachment was recent and conditions seemed favorable for recovery, and yet the final improvement was insignificant. Hypodermic injections of pilocarpin had been made in five cases, supplemented by instillation of eserin in one, including the two negative cases. There is no scientific basis for the assumption that these adjuvants are contraindicated, and the impression was derived that they had contributed to the improvement, when there was any. He summarizes his conclusions to the effect that injections of 3 to 20 per cent sodic chloride do absolutely no good in detachment of the retina of long standing. In recent detachment injections of 2 to 10 per cent cause a slight increase in both central and peripheral acuity of vision, but after three or four days the improvement is lost. In general, the eye responds to the first two or three injections, but is not affected by subsequent ones. On the whole, these injections give no better results than those obtained by the more usual modes of treatment.

REPORTS OF SOCIETIES.

SECTION ON OPHTHALMOLOGY.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Meeting, November 18, 1903. Dr. Samuel D. Risley, chairman, presiding.

Dr. William Zentmayer exhibited a case of *Persistent Hyaloid Artery* as a blood-bearing vessel. When first seen the child was twenty-one months old, and the vessel with its inclosing sheath could be traced from the disc to the posterior capsule of the lens. Five years later the lens had become opaque, and four years subsequently the cataract was absorbed and the hyaloid remnants were again visible.

Dr. G. E. de Schweinitz exhibited a patient with the *Ciliary Processes Visible in the Pupillary Area.* Bilateral iridectomy had been performed for the relief of chronic iritis followed by needling of the left lens, and the ciliary processes through the entire upper portion of the coloboma were distinctly visible, and, extending from the partially absorbed lens to the points of the processes, the delicate fibers of the zonula could be traced. He referred to the literature of this subject, and especially to the recent paper of Koerber and Weiss.

Dr. Charles A. Oliver read a clinical history of a *Case of Right Pulsating Exophthalmos*, which, after ligation of both the right common carotid artery and the left internal carotid artery, was almost immediately cured. The boy, aged fifteen years, had been shot back of the right ear five months previously. There was a double thrill, one deeply seated in the orbit and a stronger one situated just below the right mastoid region. The eyeball was proptosed some 5 mm. in advance of its fellow, with an external deviation of 22½°.

Ligation of the right common carotid artery was followed by a partial relief of the orbital bruit and a slight lessening of the proptosis. The external deviation gradually decreased to but three degrees in two months' time. Intraocular tension remained normal. With the exception of a slight fullness of the retinal veins of the affected side there were not any visible intraocular changes.

Four months later the double bruit had become more pronounced, and both the retinal veins and the corresponding arteries were more tortuous. These symptoms increased during a period of three months, when the left internal carotid artery was ligated, and the patient was placed upon the Tufnell treatment. Ten days after the

operation an attack of obscuration of vision of the right eye lasting some seventeen hours ensued, during which time both bruits were absent. Examination immediately afterward failed to show any gross lesions except those above noted. Not the slightest objective evidence of either glaucoma or intraocular hemorrhages could be found.

The symptoms, though somewhat lessened, did not subside until almost three years after the original accident (twenty-one months after the second operation), when the patient collided with one of his playmates, producing an almost immediate disappearance of nearly all of the conditions. This good result has remained intact for more than a year. At present, there is but 1.5 or 2 mm. of right proptosis situated directly ahead, and the retinal veins are but slightly enlarged. Both eyes are properly functioning in every respect. There is no orbital bruit; no ocular pulsation; and no perceptible thrill.

DISCUSSION.

Dr. Risley referred to a case of exophthalmos appearing suddenly after a debauch, and associated with diplopia, deviation of the eyeball inward, and edema of the conjunctiva. A diagnosis of aneurysm of the cavernous sinus was made. For several weeks the man was kept in bed, and compression made upon the common carotid, which entirely stopped the bruit while the pressure was maintained. The common carotid was subsequently tied, and complete recovery ensued with normal vision and disappearance of the exophthalmos. Extensive hemorrhages occurred in the eye-ground following ligation of the artery—a fact he found difficult to explain. In his judgment treatment by compression prior to ligation of the vessel is important, since it contributes in an important degree to the establishment of a collateral circulation, and in this way favors a cure. Dr. Harlan cited an instance in which compression alone effected a complete relief of a marked case of exophthalmos, the equator of the globe extending beyond the orbital margin. The compression was continued at intervals for months, and later the patient, who became expert in making the pressure on the vessel, only employed the compression when in pain. In about a year the exophthalmos disappeared. While this might have been a case of spontaneous cure, he believed that the patient's persistence in applying the compression relieved the condition. Dr. Risley stated that he had reported a case a few years ago in which compression effected a cure.

PROTARGOL-ARGYROSIS OF THE CONJUNCTIVA.

Dr. G. E. de Schweinitz, after referring to a paper recently published on the treatment of trachoma, in which it was stated that 2 per cent solutions of protargol could be safely entrusted to patients because they do not produce the disagreeable stainings attendant upon the use of some of the salts of silver, questioned the wisdom of this publication, because protargol is capable of rapidly, it would seem in some instances more rapidly than nitrate of silver, producing argyrosis. He quoted the literature of this subject, referred particularly to the papers of Pergens, Dodd and others, and then described five cases which had come under his own observation, in all of which the solution of protargol used had been a 5 per cent strength. One of these cases he had already reported in detail with microscopic examinations before the American Ophthalmological Society. The shortest time in which the staining had taken place was difficult to determine, although Pergens maintained that he had seen it at the expiration of five or six weeks after the use of a 2 per cent solution. Dr. de Schweinitz thought, however, that in most instances from three to six months had been required to bring it about. He agreed that protargol was an admirable remedy, properly used, in many conjunctival diseases, but maintained that it was not safe to give it to patients for home use, even in the weak solution already referred to.

DISCUSSION.

Dr. Risley stated that he had seen in consultation a few months ago an extensive and deep staining of the conjunctiva in the region of the internal canthus from a single injection of a 10 per cent solution of protargol into the lachrymal sac for the relief of dacryocystitis. The staining gradually disappeared. He agreed with Dr. de Schweinitz that these salts of silver should not be given to patients for home use.

Dr. G. E. de Schweinitz read a paper on *Certain Untoward Results of Tenotomies for Anomalies of Ocular Motility*, and discussed the subject under the following heads: overcorrections resulting in manifest deviations; insuperable diplopia; limitations in the ocular rotations; the development of phorias not originally existing; and painful cicatrices. Cases were given in illustration and the remedies—operative and otherwise—employed to bring about relief were described. Dr. de Schweinitz dwelt at some length on cases of insuperable diplopia created by what he termed pernicious activity in interfering with the attachments of ocular muscles, especially in

repeated tenotomies, and the grave disturbances of the nervous systems of the patients which had arisen in consequence of them.

Drs. Wm. Campbell Posey and H. Maxwell Langdon (by invitation) reported *Some Observations upon the Non-operative Treatment of Squint*, and detailed the history of nine cases of convergent squint treated by the Worth amblyoscope. Case I, aged six years, static convergence 40°, V = O D, 6/5; O S, 1/45. After four weeks, V = O S, 6/30, and convergence 30°. Case II, aged six years, V = O D 6/30, O S 6/20, improved to 6/20 and 6/15, no fusion power developed, nystagmus on fixation. Case III, aged four and a half years, alternating squint for one year. Trained four times with amblyoscope, and slight gain in fusion power. Seen eight months later with no squint. Case IV, aged six years, trained twice weekly for four months. Vision improved in O S from 6/30 to 6/15, and static convergence lessened from 30° to 5°. No gain in fusion power. Case V, aged seven years, static squint 35°, corrected V = O D 6/6, O S 6/9. At the end of four months squint lessened to 10°. Fusion with amplitude of from 3° to 5° obtained. Tenotomy will be required to place visual axes parallel, and it is hoped that the slight fusion sense developed will keep them so. Case VI, aged six years, static convergence 50°, V = O D 6/6, O S 6/30. At first O S fixed and O D deviated, but after use of atropin in O S only, O D became fixing eye and O S deviated and became amblyopic. No improvement in either squint or vision in amblyopic eye, though O D was ordered covered two hours daily. Case VII, aged eight years, static squint 10°, V = O D 6/12, O S 6/6. In four weeks fusion amplitude of 10°, and squint disappeared both with and without correction. Case VIII, aged nine years, similar to preceding. Case IX, aged five years, high H + A H; alternating squint, and vision same in each eye. Already has some fusion power, although only four trainings with amblyoscope.

Two cases were found to squint without their correction on strong accommodative effort, though each had perfect fusion power with good amplitude. A high refractive error existed and the accommodative effort apparently caused an over-convergence. Mr. Worth claims that squint with perfect fusion power is impossible. The dynamic convergence of one of these was 20°, and of the other 45°.

Without combating Mr. Worth's theory of a defective fusion faculty as the etiological factor in convergent squint, it did not appear to the writers that the proof offered by Mr. Worth of certain

experiments which he had made with the amblyoscope by any means proved his theory or confounded the theory of Donders, of disturbed relationship between accommodation and convergence. They called attention to the fact that the amblyoscope, in order to be of service in establishing binocular vision and removing the squint, must be employed before five years of age, and they offered an earnest plea that glasses be prescribed for squinting children as early as three years of age. They advocated the instilling atropin into the non-squinting eye, or bandaging this eye for certain periods during the day, even at an earlier age. The writers found vertical deviation in the images in a very large proportion of their cases. They believed the amblyoscope to be an instrument of great value in training binocular vision, and contrary to the impression one might at first obtain of it, easy to use and not to demand a great deal of time in its employment.

IS DOUBLE OPERATION FOR SENILE CATARACTS JUSTIFIABLE?

Dr. H. F. Hansell answers this question in the affirmative under the following conditions: That the vision of each eye is so diminished that the patient is debarred from his usual occupation and is unable to earn a living; that both cataracts are ripe enough to warrant extraction or in other words that either lens might be operated on with equally good chances of a favorable result; that nothing in the patient's mental or physical state might militate against recovery; that the cataracts are not secondary to local or general disease; that the extraction of the first lens was accomplished without accident or indications of complications should operation on the second eye be attempted. The contraindications are the danger of infection during or after operation, the presence of lachrymal disease, constitutional weakness from nephritis, diabetes, syphilis or other dyscrasia, hemophilia or other idiosyncrasy and the patient's unwillingness. The advantages of the double operation are that the patient is subjected to one operation instead of two, recovery occupied ten days instead of twenty, the restoration of binocular vision and the simplification of the subsequent correction of refraction. In Dr. Hansell's five cases recovery ensued without complication and the history of the healing contained no intimation that the conditions would have been improved had the procedure been limited to the extraction of the lens from one eye only.

DISCUSSION.

Dr. Harlan thought that in the few cases in which a general anesthetic was necessary, both lenses might be extracted at one time,

although he preferred to operate upon one eye, as information is often obtained that proves of value in extracting the lens of the second eye.

Dr. Risley referred to a man, aged eighty-two years, who developed rheumatism, after a perfectly smooth extraction, which attacked the operated eye. Under treatment of the rheumatism, the eye became quiet. If both eyes had been operated upon, a double rheumatic iritis might have resulted with serious results to vision. In cases of old people under general anesthesia he believed that double extraction was justified in the absence of any marked general dyscrasia, i. e., rheumatism.

WILLIAM M. SWEET, M. D., *Clerk of Section.*

WILLS' HOSPITAL OPHTHALMIC SOCIETY.

NOVEMBER, 1903, MEETING.

Dr. S. Lewis Ziegler showed a most interesting case of *double coloboma of the iris and capsular indentations with lenticular streaks and choroidal involvement* in their usual situations, in association with microöphthalmos which was more greatly marked on the left side, occurring in a five year old girl of good parentage. In addition, there was a pronounced degree of convergence of the two eyes, but without any apparent pareses or palsies.

Dr. Charles A. Oliver exhibited a cured case in a normally functioning eyeball of *infectious kerato-iritis with deposits on the anterior capsule of the lens.* The patient, a foundry worker of thirty-one years of age, had struck his left eye with a splinter of soft wood, producing an open wound of the cornea through which two pieces of wood has passed into the anterior chamber and rested against the iris, the iris tissue being grossly inflamed and infiltrated. After removal of the splinters of wood and all of the foreign material possible, with careful treatment of the involved parts, the signs of reaction rapidly disappeared, leaving a permanently healthy organ. Bacteriologic examination of the pieces of wood showed a preponderance of pyogenic bacteria.

An example of the comparatively rare condition of suppurative dacryodenitis in which the diagnosis had been fully established during the very earliest stages of the disease, was shown by Dr. Ziegler. He also exhibited an instructive illustration of optic nerve atrophy following ocular contusion, the only visible early signs being the

presence of a few massings of subretinal hemorrhage situated in the posterior pole.

Dr. Oliver showed the final results of a case of *chronic double symblepharon and ankyloblepharon from a hot iron burn,* in which he had successfully separated both the lower and the upper lids from the eyeball, giving all their ordinary and proper degrees of motility. The bands, which embraced more than the inner third of both lids and which were fastened directly to the corneal limbus, and which bound the inner fourth of the lid borders together, had been dissected into loose tongue-like flaps, and the adjacent conjunctiva brought together throughout their entire original lengths beneath by a series of fine interrupted silk sutures; the loosened tongues of scar tissue being fixed to the adjoining good mucous surfaces. The operation was divided into two sittings.

Dr. M. Uribe Troncoso, of the City of Mexico, being invited to give his views upon the origin of glaucoma, stated quite extensively in detail the findings in his experimental studies upon lower animals, the results of his clinical researches, and his conclusions in regard to the various etiologic factors at play; as well as the prognoses, and the various plans of therapy, in such cases. The want of fibrin, the great amount of albumin, the edema of the vitreal elements with forward pushing of the vitreous body, the secondary closure of the angle of the anterior chamber, etc., all were carefully considered.

In the discussion, Drs. Oliver, Ziegler and Radcliffe took up the questions of the varieties and stages of the disease complex, the main etiologic factors at work, the gross and the fine pathologic changes, and the relative effects of medicinal and operative therapy.

Dr. Bedell showed a case of dendritic ulcer of the cornea following capsulotomy which had been cured by large doses of quinine used both locally and internally. Upon inquiry, he stated that no bacteriologic studies had been established.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, November 19, 1903.

John Tweedy, P. R. C. S., president, in the chair.

Case of Indirect Gunshot Injury of Eyes; Microscopical Examination.—This case was read by Mr. Nettleship. The patient was a man aged nineteen who in July, 1897, held a pistol to each temple and fired. He was brought to the hospital bleeding from a wound

in the right temple. The skin was singed and the bullet wound passed through the orbit into the ethmoid. In the left temple was a bullet wound into which a probe could be passed two or three inches. There was P. L. in the right eye, but not in the left. Nine days later the right fundus showed hemorrhages in various parts of the fundas. In the left no details were visible. Twenty-nine days later the right disk was very pale and there were several ruptures of the choroid. The left was not so well seen. Thirty-one days after the accident he was X-rayed, this being in its very early days. It was thought that two bullets were seen in the skull, but this was found afterward to be an error. On the thirty-sixth day after the injury convulsions developed and patient died comatose. Post-mortem examination showed that there was no bullet in the skull. There was meningitis of the base and vertix. Only the pistol fired on the left side took effect, the right having probably had a blank charge in it. The back part of the eyes were removed for examination and Mr. Nettleship gave a lantern demonstration and showed photographs on the condition found on microscopical examination. The point of interest was that although the bullet had caused so much injury to the choroid, yet this was only indirect as it had not passed near enough to the eye to touch it, and there was no rupture or perforating injury of the sclerotic.

The president mentioned a somewhat similar case that had come under his own observation.

An Easy Operation for Ectropion.—Dr. Freeland Fergus described the operation he had found very useful for ectropion following certain cases of blepharitis. He considered the usual methods with caustics unsatisfactory. The operation he described consisted of dissecting the conjuctiva well away from the underlying tissue and removing the hypertrophied tissue thoroughly; on this latter point depended the success of the operation. He considered that Snellen's sutures produced but little effect if they were kept asptic.

Average Visual Acuteness.—Dr. Freeland Fergus also read a paper on this subject. He seriously called in question whether the 6/6 of Snellen's types was the average vision of the majority of people. He thought that the average was nothing like so high if patients were taken without the correction of their refractive error and that for medico-legal questions the average without correction should be taken. He suggested that a committee should be formed to investigate this. They might at the same time investigate the question of color vision as he considered that color blindness was not

in any way dangerous to navigators or seamen if their light sense were normal.

Mr. Devereux Marshall said that he was surprised that color blindness should be considered of so little importance to those engaged in navigation, and if there were any who doubted the extreme inadvisability of allowing color blind men to take responsible positions on board ship a committee should certainly be formed to settle the matter.

The president said that although he quite agreed as to the importance of the light sense being perfect, yet he by no means thought that color blind people should be allowed to take charge of ships.

Messrs. Seker Walker and Roll discussed the operation for ptosis and Dr. Freeland Fergus in reply said that he considered color blindness of no disadvantage to seamen, for if their light sense was perfect, they would never confuse the side lights. He thought it entailed much hardship on men who were perhaps rejected from the Extra-Master Certificate for color blindness, when they had perhaps served many years at sea without any accident having occurred in consequence of their defect.

The Judgment of the Size of Distant Objects.—Mr. N. Bishop Harman in his paper on this subject referred to a note in the *Brit. Med. Journal* of Sept. 12, 1903, wherein a writer drew attention to an experiment in which, by an illusion, the experimenter was led to believe objects seen were smaller and more distant than they were known to be, this had been attributed to the influence of accommodation. Mr. Harman pointed out that these facts were true and well known. He showed by several simple experiments with prisms and stereoscopic views that objects could be made to appear either small or large at will, and that this illusion was due to the state of balance of the extraocular muscles. The unconscious cerebration leads one to suppose that objects of a given size appeared, when seen under unnatural conditions of convergence, smaller and more distant; but that when seen under unnatural divergence they seemed larger and nearer than they were known to be. Mr. Harman showed that in the progression of the vertebrates, increase of visual acuity was coincident with the moving of the eyes from a primative lateral position of the head to a forward position, in which the visual axes could approximate a normal parallelism; the change was complete in man and with him spacial perception was probably most perfect. Coincident with these changes was a specialization of the superior

oblique muscle. Mr. Harman pointed out that in the plaice almost the whole of this slow progression had been anticipated at a bound. These elected to live a life resting on one side, and they appear to depend above all other fish on the acuity of their eyes, both of which were turned upward on the exposed uppermost side, and were, he thought, capable of some degree of parallelism of visual axes. In these fish he had found the same special features of the superior oblique muscles which characterized the higher vertebrates, it was not found in any other fish. He believed that the steady progression of the vertebrates toward binocular vision indicated the preëminent importance of extraocular muscle balance in the factors which go to form our judgment of size and space.

The following card specimens were shown:

Mr. G. W. Roll: *A case presenting a raised area of choroidal degeneration.*

Mr. Doyne: *A case of ill-developed cornea.*

Mr. Pooley: *Thrombosis of a retinal vein.*

Mr. G. E. Henderson: *Sections showing subconjunctival dislocation of the lens.*

Mr. Jessop: *A case of sarcoma of the limbus.*

Mr. Doyne: *Sclerosis of the retinal artery.*

COLORADO OPHTHALMOLOGICAL SOCIETY MEETING IN DENVER, OCTOBER 19, 1903.

Discussion on the "*Therapeutics of External Diseases of the Eye and Its Appendages*" was opened by Dr. Walter Hilliard, who reported seeing Mrs. —— in July, 1899. She consulted him for a refractive error, which he duly corrected. The patient suffered also from a *chronic dacryo-cystitis of O. D.* of four or five years' duration, which she declined to have treated, as other ophthalmologists had failed to give her relief. He saw the case again in April, 1903, when he found the lachrymal apparatus in both eyes normal. No vestige of disease remained. Patient stated that she had an attack of erysipelas beginning in the left temple, rapidly involving the entire face and scalp. The attack was severe, delirium was present for several days and both eyes were closed by the swelling. This attack lasted two weeks; with its disappearance the lachrymal disease vanished.

Dr. D. Coover mentioned several cases of dacryo-cystitis caused by facial erysiplas.

Dr. M. Black once saw an old case of dacryo-cystitis with phlegmonous involvement of the sac; this inflammation apparently cured the dacryo-cystitis. Subsequently, though he passed no probe efforts to syringe the duct through the canaliculus were unavailing. He believes these cases are cured by an obliteration of the lachrymal sac by adhesive inflammation. Dr. G. F. Libby reported a somewhat similar case.

Dr. Hilliard reports good results from 10 per cent to 30 per cent sol. argyrol in both catarrhal and purulent inflammations of the conjunctivæ and in cases of dacryo-cystitis. Dr. Black is in doubt as to the utility of argyrol. He finds sol. ichthyargon in 4 per cent to 10 per cent improves pannus and cicatricial trachoma. He advises the use of iodine-vasogen as a stimulant in scleritis and kerato-scleritis.

Dr. A. C. Friedmann spoke of a recent case in German literature of atropin poisoning following the combined use of atropin and adrenalin in solution and believes such toxic effect is impossible if the drugs were used in succession in separate solutions. For pannus he advises 1:3000 sol. adrenalin chloride in a 1 per cent sol. acid boracic with 10 per cent vaselin.

Dr. E. Jackson believes there will soon be a good crop of stained conjunctivæ from the new silver preparation. He detailed cases of dendritic keratitis treated as follows:

Case 1.—Dendritic corneal ulceration, characterized by great pain. Preceded by sol. holocain, 1 per cent, the ulcers were touched with a pointed stick first soaked in a 30 per cent to 50 per cent sol. acid nitric. The wood is allowed to dry a few seconds so that no excess of acid can adhere to it; it thus acts as a sponge, to give up the solution on contact. The nitric acid eschar thus formed is hard and protective. The case rapidly improved, pain quickly subsided. He does not wash out the conjunctivæ after the application.

Case 2 presented a large patch 3 mm. long, extending horizontally across the cornea with several punctate areas beyond, the ulceration was shallow but very painful. Rapid healing following nitric acid cauterization.

Dr. G. F. Libby reported a case of chronic dacryo-cystitis rapidly cured by a 10 per cent sol. protargol, also two cases improved by treatment of the nasal extremity of the duct.

Dr. J. A. Patterson always examined the condition of the nose in dacryo-cystitis and treated any existing pathological conditions, believing it to be an essential factor in the cure. He has been disappointed in the action of argyrol, finding it no more efficacious than

protargol, and, though painless when applied, is such a bad staining agent, particularly to clothing and handkerchiefs, as to be disagreeable. He spoke of the efficacy of weak solutions of mercurol in phlyctenular conjunctivitis. He has had good results from applications of copper citrate in substance to the cicatricial lids of old trachoma sufferers.

The following clinical cases were presented by Dr. Melville Black:

Case 1.—John ——, presented at the last meeting, showing interstitial keratitis in O. D. and hyalitis in O. S., with an attack of glaucoma following the accidental entrance of atropin into O. S. that had been ordered for O. D. only. At that time a broad iridectomy had been done in O. S. which had stayed the glaucomatous process. Since then he had been in the hospital two weeks, where pilocarpin sweats had been induced on alternate days by hypodermic injections. The vitreous opacities had been greatly improved. Three days after leaving the hospital the glaucoma returned, which had been controlled by eserin. Dr. Black desired opinions as to the advisability of doing a sympathectomy.

On discussion the members advised continuing eserin, advocating sympathectomy if required.

Case 2.—Male, injured ten days ago by a small fragment of steel flying from a tool on which he was pounding. The tool being new, the nick point showed the fragment to be half the size of a wheat grain. Vision immediately became obscured. Dr. Black saw him the day following the injury. There was a penetrating wound of the cornea, iris and lens, the iris being caught in the corneal wound. Some blood was present in the anterior chamber. No view of fundus obtainable. Giant magnet for diagnosis negative. He was anesthetized, a linear extraction with iridectomy performed with the tip of a Hirschberg magnet introduced into the suspected portion of the vitreous. No foreign body was found. Pain continued. A skiagraph by Sweet's method is negative. Second trial of giant magnet negative. Dr. Black believes a foreign body is present, but has not sufficient convincing proof.

On discussion Dr. Neeper believed one was justified in waiting. Dr. Hilliard and Dr. Coover advised enucleation. Dr. Jackson advised waiting and enucleating promptly if inflammatory symptoms do not promptly lessen. He believes a foreign body is present.

Case 3.—Girl, aet. nineteen; has been under the care of her family physician for two months for interstitial keratitis; treatment

consisted of iodide and mercury internally and atropin locally. A week before coming to Dr. Black the cornea began to bulge, without pain, but with marked photophobia. When he first saw her, in addition to the corneal bulging, the corneal tissue was filled with opaque spots that were located in the middle and posterior layers. Numerous blood vessels ran into them from the periphery; anterior chamber shallow, T + 1. Eserin was used occasionally to control tension and ung. iodoformi, 10 per cent locally, daily. After a few days an iridectomy was made, since which time the corneal staphyloma has decreased 50 per cent. No history nor evidence of syphilis is obtainable, general health being good. Dr. B. is unable to assign a cause.

Case 4. Male, aet. forty-five. First seen nine months ago because of failing vision in O. D. Eye grounds normal except evidence of slight opacity of retina at macula. H2 for each eye. He should conclude that the eye was simply amblyopic if patient was not conscious of blurred vision on this side. Vision in both eyes equals 5/5.

Case 5. Male, aet. twenty-three. O. D. V. and O. S. V.=5/40. Fields normal. Both nerves abnormally pale and each macula occupied by an elevated pin head size patch slightly paler than the surrounding fundus. Though he had consulted many oculists and neurologists he was unimproved. Dr. Black found no assignable cause.

Dr. W. C. Bane presented the following cases:

Case 1. Results of *plastic operation* on left eye done *one year* ago.

L., male, aet. thirty-five. Dr. Bane operated in November, 1902, for extensive *symblepharon* of the left upper lid. "The adhesion extended from the center of the cornea including all of the upper half of the surface of the ball into the cul de sac, and temporarily 6 mm. beyond the limbus. Under local anesthesia the adhesion was dissected away. A part of the denuded surface was covered with a graft from the patient's lower lip and the remaining surface covered by transplanting ocular conjunctiva. A thin sheet of lead was then inserted like an artificial eye, which was worn four or five days. The result has continued perfect, allowing free movements of the lids and eyeball. The condition was believed to have been caused by grattage of the lids for trachoma.

Case 2. Male, aet. thirty-two. Italian coal miner. Came to the D. and G. College Dispensary October 17, six days before the right eye became inflamed and on the above date presented a yellowish corneal ulcer 2 mm. in diameter in center of right corneal

quadrant with chemosis conjunctivæ, marked photophobia and pain. The ulcer was cleaned out with pure carbolic acid, atropin instilled and compress bandage applied. The following day the actual cautery was used upon the ulcer, atropin and sterile vaseline applied. Gradually the ulcer by extending involved the entire cornea. Hypopyon appeared on the fifth day of treatment, increasing until the anterior chamber was half full. Acting upon the findings of Uhthoff and Axenfeld, that the pneumococcus is the cause of serpent ulcers, he injected into the tissues below the scapula 20 cc. of Mulford's anti-pneumococcic serum. The following day the hypopyon was larger, but from that time on there was no further increase and pain became less for three or four days. The pain, however, returned on November 6, when the anterior chamber was tapped and the bulk of the pus liberated. The wound was kept open several days. Improvement began after the paracentesis and the ulcer healed. An examination of the *secretion from the ulcer* just before the serum was used was learned subsequently to contain *no pneumococci* but an abundance of *streptococci*. Previous to administering the serum sodium salicylate in twenty grain doses was given every three hours and continued for a week afterward.

Discussion.—Dr. E. W. Stevens considers that the pneumococcus corneal ulcer is more superficial in its involvement than the streptococcus invasion. The anti-streptococcus serum does neither good nor harm. Dr. E. Jackson replying to a question by Dr. Neeper, believes in releasing 2 mm. or more pus in the anterior chamber if on waiting two days no improvement is noticeable.

Case 3. Male, aet. twenty-four. Irish parentage. When intoxicated was struck in the left eye, seventeen days ago. Thinks he was not struck with any one's fist, but does not know how he was injured. The eye has been blind ever since the accident. When Dr. Bane saw him the third day after the injury, the eye having been previously dressed by a general practitioner, there was present ecchymosis of the lid and conjunctivae, and the cornea was of a gray opaque appearance, showing a horizontal, sharp-edged cut extending entirely across it, through which a shred of iris protruded. The protruding iris was excised, atropin instilled and the eye sealed with 1.1000 trikresol vaseline and a compress bandage. The wound leaked until about the fifteenth day, when the edges of the cut were found drawn inward, the lower slightly overriding the upper. Slight flattening over the ciliary body was manifest. Pain has developed during the past twenty-four hours.

Discussion.—Dr. Friedman believes the case to be one of rupture of the cornea.

Dr. Jackson said such ruptures usually occupied the periphery of the cornea.

Case 4. P. K., aet. five. On September 29, 1903, while endeavoring to withdraw a nail with a pair of broken-pointed scissors he struck the left eye, causing an oblique cut across the cornea from within 2 mm. of the temporal margin to near the nasal margin. The wound healed promptly with little pain. When Dr. Bane saw the case, five days afterward, the wound was partly closed and a band of iris was incarcerated in the outer angle of it; slight circumcorneal injection was present but no evidences of infection. Vn.= 6/6 in each eye. Atropin and compress bandage applied. There now exists a linear opacity where cornea was cut and an anterior synechia. Within the past two weeks there has been a disposition for this eye to diverge.

Discussion.—Dr. Black had a somewhat similar case in which five or six years after the accident he successfully released the synechia with a Knapps knife needle, although vision continued low on account of irregular astigmatism. Dr. Coover related a case of anterior synechia from a perforating corneal ulcer which he released by introducing a blunt hook into the anterior chamber, catching the synechial band and detaching by traction.

Dr. Jackson "thinks this is a case for such an operation as Dr. Black mentioned, believing the astigmatism would be improved by it."

Dr. E. R. Neeper, Colorado Springs, exhibited two new eye glass guards he had constructed, one similar to the Wells guard, having an adjustment to alter and fix the ventero-posterior angle of inclination of the guard, and one with a peculiar spring for use on mountings, similar to the Fitch patents; the latter design he showed gave greater ease to the wearer and more security of hold than the ones commonly in use.

J. A. Patterson,
Secretary.

ABSTRACTS FROM RECENT OPHTHALMIC LITERATURE.

BY EDWARD A. SHUMWAY, M. D.,
PHILADELPHIA.

Astigmatism of the Cornea and Central Choroiditis in Myopia.—A. Senn (*Arch. f. Augenheilk,* Aug. and Sept., 1903), from a study of cases of myopia, comes to the conclusion that the central choroiditis, which occurs in myopia, is not dependent upon the degree of myopia, but upon the corneal astigmatism. In 205 eyes with central choroiditis he found that pathological astigmatism (*i. e.,* over 1.25 D, according to the rule) was present in 78.1 per cent, while in 196 eyes with high myopia (over 7 D) without central choroiditis, astigmatism was present in only 27.6 per cent. Moderately myopic eyes with 2.5 D of astigmatism are more apt to be complicated with central choroiditis than those of 18 D of simple myopia; and if a moderately myopic eye (less than 8 D) has central choroiditis, there is usually a high degree of astigmatism with the rule, or some astigmatism against the rule. Hence the astigmatism should be very carefully corrected. Senn was able to observe a decided improvement in visual acuity in a number of such cases by correction of the astigmatism.

The Treatment of Diseases of the Lid Margins.—Wolffberg (*Wochenschr f. Therapie u. Hygiene des Auges,* Oct. 1, 1903) recommends the use of benzine and of hydrogen peroxide in the removal of the scales and crusts from the margins of the eyelids in blepharitis marginalis. Removal of the cilia is unnecessary. Benzine can be used in full strength and is applied by means of a piece of cotton to the slightly everted lid margin. The crusts are readily removed, and as the lid margins are freed from bacteria, at the same time, and the marginal ulcers exposed, the succeeding application of yellow salve is rendered more effective. The burning sensation produced by the benzine is moderate, and soon disappears. Wolffberg advises its daily application by the physician, until the condition has improved. Hydrogen peroxide is also of value, and may be dropped directly upon the infected lid margin. He uses the preparation of the Merck-Darmstadt Company, which is chemically pure, free from acid and contains 30 per cent H_2O_2 by weight. On the application of 0.3 to 0.5 per cent solutions (eyes closed) gas is developed, and the crusts are easily wiped away with cotton. It has the added advantage that it makes the small scales white, so that they can be readily seen. Wolffberg has also used H_2O_2 with success in

vernal catarrh of the conjunctiva, in combination with cocaine and atrabilin.

Concerning the Superficial Punctate Exanthematous Keratitis Occurring in Measles.—Trantas of Constantinople (*Annales d' Oculistique*, Aug., 1903) describes a superficial keratitis in measles, in the form of small, grayish points, situated in the superficial layers of the cornea, which he has seen in 31 out of 41 cases examined (76 per cent). When the points were numerous, the keratitis was accompanied by irritative phenomena. The condition was almost always bilateral, commencing usually from the third to the fifth day after the appearance of the eruption. It was occasionally observed on the second day, and sometimes not until the eruption had disappeared, but was never found to precede the latter. It disappears in the course of three or four days, without especial treatment. Age and sex have no influence. Trantas believes that it is of the same nature as the exanthem itself, as it occurs in the superficial layers of the cornea, which constitute, embryologically, the cutaneous part of the cornea, and thus differs from the phlyctenular condition often found in measles, which is usually attributed to the lymphatic diathesis influenced by the measles. It accounts for the great irritability of the eyes which is so often seen after the appearance of the eruption. Herpes of the cornea, occurring in diseases of the respiratory tracts, differs from it in being unilateral, commencing in the form of vesicles, which break down and leave loss of substance, and are accompanied by much more intense pain, and often associated with labial herpes. Its rapid disappearance differentiates it from the superficial punctate keratitis of Fuchs, Stellwag v. Carion, etc. Morax, in the same number of the *Annales* says that his investigations have not corroborated the results of Trantas as to the presence of this form of keratitis in measles.

Treatment of Recurring Hemorrhages of the Vitreous by Hypodermic Injections of Gelatinized Serum.—Fromaget (*Annales d' Oculistique*, Sept., 1903) has used subcutaneous injections of gelatine in two cases of recurring hemorrhages into the vitreous. In each case one eye was totally blind as the result of the hemorrhage and the fellow eye had been the seat of one hemorrhage. The patients were young men of twenty-three and twenty-four, and had been under various kind of treatment, without success. In the first case 50 c. c. of gelatinized serum (2 per cent) were injected into the subcutaneous tissue of the abdomen, and a similar amount three days later. The injection was rather painful, and gave a slight local and

general reaction, but was rapidly absorbed. Six months later the eye was clear, and showed only traces of previous retinal hemorrhages. Two more injections of 100 c.c. were then made, and the patient allowed to depart. No further hemorrhages occurred. In the second case six abdominal injections of 150 c. c. each were made, and both eyes became clear. The vision had remained good for three and one-half years. He believes that the treatment should be tried in suitable cases. Its action is two-fold—in the first place producing hemostasis, and, in the second, modifying the constitution of the blood so that it is more coagulable and less diffluent. He thinks there is no danger of producing tetanus, if the serum is properly sterilized, but if the operator is not sure of the sterilization, it would be better to substitute chloride of calcium, which has the same properties, though it is less active. This may be given in doses of 5 to 6 grams per day, by mouth, or of 10 grams by injection.

NOTES AND NEWS.

ITEMS FOR THIS DEPARTMENT SHOULD BE SENT TO DR. BROWN PUSEY, 31 WASHINGTON ST., CHICAGO.

A new ophthalmic journal will appear shortly, edited by Prof. Dr. Krukow, of Moscow.

Dr. Edmond Landolt has been elevated to the dignity of commander of the Order of the Crown by the German emperor.

Dr. George E. de Schweinitz has been appointed a member of the advisory board of physicians and surgeons for the eastern state penitentiary of Pennsylvania.

Professor Cirincione, of Sienna, has been called to the chair of clinical ophthalmology in Genoa, to fill the position made vacant by the death of Professor Secondi.

A news item from Binghamton, N. Y., says: General Edward F. Jones, formerly lieutenant governor, has made an offer, through the board of education of this city to aid any pupils in the public schools of Binghamton, whose eyes are affected and who need the attention of an oculist.

During the past few years General Jones has been losing his sight, until he is almost totally blind. His own misfortune has prompted him to do what he can to aid others who may be similarly afflicted, and he has become much interested in all work for the blind.

In the personal injury case of Vant Hul vs. the Great Northern Railway Company, where the party suing, a young man of eighteen years, lost the vision of one eye, and, according to the testimony, the other eye was impaired to the extent of about nine-tenths, with a strong probability that the sight would ultimately be entirely lost,

the Supreme Court of Minnesota holds that it could not be said that a verdict of $14,400 was excessive.

The second volume of Dr. George M. Gould's "Biographic Clinics" is announced for very early publication. In the second volume of this series the origin of the ill-health of certain famous personages of former days is still further sought for. This time Wagner, Parkman, Mrs. Carlisle, Spencer, Whittier, Ossoli and Nietsche are the subjects of Dr. Gould's researches, as were De Quincy, Carlisle, Darwin, Huxley and Browning in the first volume.

The report of the building committee of the Eye, Ear, Nose and Throat Hospital, of Pittsburg, Pa., of which Dr. J. A. Lippincott is chairman and Dr. W. F. Robeson is secretary, and Drs. Charles A. Wishart and G. E. Curry are members, is published in the seventh and eighth Annual Reports of the Hospital. This committee was appointed in October, 1901. It has secured by contributions over $70,000, and as a result of their good work contracts have been made for a magnificent hospital building.

The thirtieth annual meeting of the Mississippi Valley Medical Association will be held at Cincinnati, Ohio, October 11, 12, 13, 1904. Dr. B. Merrill Ricketts has been elected chairman of the committee of arrangements.

The following are the officers of the Association elected at Memphis: President, Edwin Walker, M. D., Evansville, Ind.; president-elect, Hugh T. Patrick, M. D., Chicago, Ill.; first vice-president, Bransford Lewis, M. D., St. Louis, Mo.; second vice-president, Geo. W. Cale, Jr., M. D., Springfield, Mo.; secretary, Henry Enos Tuley, M. D., Louisville, Ky.; assistant secretary, S. C. Stanton, M. D. Chicago, Ill.; treasurer, Thos. Hunt Stucky, M. D., Louisville, Ky.

The following resolution was offered by Dr. S. P. Collins, of Hot Springs, Ark., at the Memphis meeting:

Whereas: The value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures; therefore be it

Resolved, That it is the sense of the Mississippi Valley Medical Association that measures be taken by boards of health, boards of edu-

cation and school authorities, and where possible, legislation secured, looking to the examination of the eyes of all school children, that disease in its incipiency may be discovered and corrected.

"The Eye and Nervous System; their Diagnostic Relations" is the title of a work soon to issue from the press of the J. B. Lippincott Co. The fact that it will be edited by Drs. Wm. G. Spiller and Wm. Campbell Posey, of Philadelphia, is a guarantee of its importance from both the neurological and ophthalmological standpoint. The work will consist of a single volume of about 800 pages of 500 words each, profusely illustrated.

The chapters in this much needed English addition to neuroph-thalmology will be written (as follows) by well known Ophthalmologists throughout the United States:

I. Dr. Wm. G. Spiller, Philadelphia. Embryology and Anatomy of the Brain. Origin and distribution of the cranial nerves, including the optic nerve, with especial reference to those with ocular connections.

II. Dr. W. Norman Suter, Washington, D. C. Sight. On the general structure of the eye and the formation of the retinal image. Anomalies of vision.

III. Dr. Charles K. Mills, Philadelphia. Psychology of the Visual Act. Psychology of word-seeing (word-blindness), mind-blindness, optic aphasia, and whatever else seems relative.

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INDEX TO VOLUME XII., NEW SERIES.

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INDEX.

A

Abducens Paralysis 559
Absorption of an Injured Crystalline Lens in a Man Forty-six Years Old, Complete 367
Accommodation and of the Soft Palate Following Mumps, Paralysis of 454
Acoin-Cocain Anesthesia..... 509
Actinomycosis, Changes in the Eye-ground in Miliary 396
Advancement Operation, A New.... 515
Air Into the Anterior Chamber; A New Method for Treatment of Tuberculosis of the Iris and Cornea, Insufflation of..... 303
Alleman, L. A. W., A. M., M. D., Brooklyn, N. Y..... 481
Allport, Frank, M. D., Chicago, Ill., ...483, 484, 506
Alter, Francis W., M. D., Toledo, O. 117
Amblyopia - From - Non - Use, Improvement in..... 15
Amblyopia from Oil of Wintergreen, Toxic 25
Amblyopia with Slow Recovery of Vision after Extraction of Very Old Cataracts 157
Anesthetic, Yohimbin; A New Local 428
Anesthesia, Acoin-Cocain..... 509
Anisometropia and Brachymetropia, The Terms Antimetropia..... 502
Anisometropia; Brachymetropia and Hypometropia in Place of Myopia; Hypermetropia and Hyperopia; A Plea for Correct Use of These Terms in Ophthalmology, Concerning the Terms Antimetropia and 368, 552
Anomalies of the Eyes, Illustrating the Transmission of Such Defects From Mother to Daughter, By Report of Two Cases of Congenital.. 65
Anophthalmos 255
Antimetropia and Anisometropia; Brachymetropia and Hypometropia in Place of Myopia; Hypermetropia and Hyperopia; A Plea for Correct Use of These Terms in Ophthalmology, Concerning the Terms 368, 552
Antimetropia, Anisometropia and Brachymetropia, The Terms.... 502
Aqueous Humor in Cases of Senile Cataract, The..... 563
Asthenopia Dependent on Neurasthenia and Hysteria..... 461
Astigmatic Eyes .....
Astigmatism; Their Detection and Correction, Some Forms of Irregular 488, 552
Astigmatism of the Cornea and Central Choroiditis in Myopia..... 603
Atrophy of the Entire Choroid..... 255
Atropin, A Case of Idiosyncrasy to Homatropin and..... 5
Atrophy of the Choroid with Sclerosis of the Vessels, Primary.... 560
Atropin, Jequiritol, Subconjunctival Injections, Notes on Some of the Newer Methods and Drugs in Ocular Therapeutics, Dionin, Methyl-Bromid of 574

B

Basedow's Disease, Concerning Epiphora as an Initial Symptom of 93
Baum, Wm. L., M. D..... 25
Black, Melville, M. D..... 498
Blind, Emile Javal's Among the..... 432
Blindness in Egypt, The Causes of.. 511
Brachymetropia and Hypometropia in Place of Myopia; Hypermetropia and Hyperopia; A Plea for Correct Use of These Terms in Ophthalmology, Concerning the Terms Antimetropia and Anisometropia 368, 552

Brachymetropia, The Terms Antimetropia, Antisometropia and..... 502
Brady, George T., M. D..... 147
Breslau, The Eyes of Medical Students in 166
Bruner, William Evans, A. M., M. D. 317
Bullard, William Lewis, M. D..... 163
Bulson, Albert E. Jr., M. D..... 69
Burnett, Swan M., M. D., Ph. A.... 121

C

Campbell, Don M., M. D..... 517
Capsule, How Shall We Open the?.. 363
Cataract Extraction, Hemorrhage from the Eye After..... 121
Cataract Extraction Produced by the Lining on the Anterior and Posterior Chamber by Epitheliel Cells, Glaucoma After 396
Cataract Justifiable, Is Double Operation for Senile?..... 573
Cataract, The Composition of the Aqueous Humor in Cases of Senile 563
Cataracts, Amblyopia with Slow Recovery of Vision After Extraction of Very Old..... 157
Catarrh, Spring 262
Cauterization of the Cornea, Stellate 562
Chance, Burton..... 341
Children, Examination of the Eyes and Ears of School..... 506
Choroid and Vitreous, A Case of Ossification of the..... 483
Choroid, Atrophy of Entire..... 255
Choroid, With a Remark Concerning the Action of Glaucoma Operations, The Operative Detachment of the 393
Choroid in a Child, Sarcoma of the. 317
Choroid, With Sclerosis of the Vessels, Primary Atrophy of the..... 560
Choroid With Secondary Degeneration of the Retina, On Sclerosis of the 558
Choroiditis in Myopia, Astigmatism of the Cornea and Central..... 603
Circinate Retinitis, Concerning the Disappearance of the Lesions in... 71
Claiborne, J. H., M. D..... 502
Clinic of Dr. Galezowski, Notes from the 524
Cocain Anesthesia Acoin..... 509
Cocain, Concerning 302
Color Vision, The Physical Aspects of a Theory of..... 63
Congenital Anomalies of the Eyes, Illustrating the Transmission of Such Defects from Mother to Daughter, Report of Cases of..... 65
Conjunctiva After Operations Involving Opening the Anterior Chamber, A New Method of Preventing Infection from the..... 160
Conjunctiva, Molluscum Contagiosum of the Ocular..... 457
Conjunctiva, True Papillæ in the Normal 457
Conjunctiva, Tuberculosis of the.... 417
Conjunctivitis, a Case of Vernal.... 484
Conjunctivitis Due to Influenza Bacillus 395
Conjunctivitis, Vernal 165
Conversatism 488
Coover, David H., M. D..... 498
Cornea and Keratalgias After Injuries of the Surface of the Cornea, On Recurrent Formation of Vesicles on the 555
Cornea, Experimental Investigations on the Healing Powers in Perforating Cuts of the..... 507
Cornea, Insufflation of Air Into the Anterior Chamber; A New Method for the Treatment of Tuberculosis of the Iris and..... 303
Cornea Made by a Fragment of Spectacle Lens, Incised Wound of the. 275
Cornea, Papilloma of the..... 496
Cornea, Stellate Cauterization of the 563
Cornea, Trichloracetic Acid Treatment of Infective Ulcers of the... 69
Cylinders for Astigmatic Eyes, and When to Prescribe Them for Non-Astigmatic Eyes, When Not to Prescribe 569
Cylinders in Making the Shadow Test, The Systematic Use of..... 420
Cysticerus Intraocularis, Contributions of the Differential Diagnosis of 394
Cysticercus 510

D

Dacryocystitis, Congenital 166
Dermoid Tumor of the Corneo-Scleral Margin, Report of a Case of 7
Detachment of the Choroid, With a Remark Concerning the Action of Glaucoma Operations, The Operative 393
Detachment of the Retina, The Pathology of Idiopathic..... 341
Detachment, A New Operation for Retinal 433
Deviometer Attachment to the Skeel Perimeter 584
Dionin, Methylbromide of Atropin, Jequiritol, Subconjunctival Injection, Notes on Some of the Newer Methods and Drugs in Ocular.... 574
Dislocation of the Optic Nerve..... 399
Duane, Alexander, M. D..... 420
Dunn, James W., B. S., M. D..... 424
Dura Mater Covered by the Cerebellum, Located in the Posterior Fossa of the Skull, Some of the Symptoms Resulting Therefrom, A Tumor of the..... 163
Dynamics of the Extra-Ocular Muscles, Deficient 530

E

Eaton, F. B., M. D.....488, 552
Edridge-Green, John E., M. D., F. R. C. S..... 63
Ellett, E. C., M. D.....160, 524
Endogenous Infection of the Eye, Experiments Upon the..... 458
Entropium, Slight Modifications of the Van Milligen and of the Hotz-Anagnostakis Operations for.... 325
Enucleation Necessary, Conditions and Diseases of the Eye Which Make an 208
Enucleation of the Eye, Implantation of a Ball of Solid Paraffin to Secure a Prominent Stump After 117
Epiphora as an Initial Symptom of Basedow's Disease, Concerning... 93
Episcleritis 517
Erwin, A. J., M. D.....208, 363
Eumydrin 510, 561
Exophthalmus Operation and Recovery, A Case of Pulsating.... 400
Extirpation of the Lachrymal Sac.. 554
Extirpation of the Lachrymal Sac as a Prophylatic easure in Septic Infections, in Occupation Injuries of the Eye..... 394
Eye Which Make an Enucleation Necessary, Conditions and Diseases of the..... 208
Eye, by Irritation of the Medulla Oblongata, Retraction Movements of the 456
Eye, with the Haab Magnet, Ineffectual Attempt to Remove Piece of Steel from the..... 274
Eye, Experiments Upon the Endogenous Infection of the..... 458
Eye, A Case of Tetanus Following Injury of the..... 339
Eye, The Diagnosis and Treatment of Perforating Infected Wounds of the 304
Eyes of the Medical Students in Breslau 166
Eyes and Ears of School Children, Examination of the 506
Eyeball? Will Certain Occupations in Time Affect the Cylindrical Curvature of the..... 426

F

Fisher, Wm. A., M. D..... 26
Friedenwald, Harry, M. D..... 15
Fulton, J. F., M. D..... 335

G

Galezowski, Notes from Clinic of Dr.... 524
Gifford, Harold, M. D..... 325
Glaucoma After Cataract Extraction Produced by the Lining of the Anterior and Posterior Chambers by Epithelium Cells..... 396
Glaucoma Malignum, Report of a Case with Recovery of Vision.. 148
Glaucoma Operations, The Operative Detachment of the Choroid, With a Remark Concerning the Action of 393
Glaucoma, Pathogenesis of..... 343
Gleason, J. E., A. M., M. D..... 471

Glioma and Pseudo-Glioma Retinae, Contribution to the Study of the Differential Diagnosis Between.. 94
Glioma of the Retina with Cases, Pathology of and Prognosis in.. 342
Gradle, H., M. D..... 55
Guilford, Paul, M. D..... 426
Gumma of the Iris, Anatomical Examination of a Case of Primary.. 338

H

Haab Magnet, Ineffectual Attempt to Remove a Piece of Steel from the Eye with the..... 274
Hale, Albert B., M. D..103, 139, 193, 574
Hansell, Howard, M. D.....522, 573
Hemianopsia, in Which the Wernicke Heminopsia Pupillary Reaction was Present, A Case of Unilateral 13
Hemorrhage from the Eye After Cataract Extraction 121
Hemorrhages in the Sheath of the Optic Nerve, Ophthalmoscopic Diagnosis of 211
Hemorrhages of the Vitreous by Hypodermic Injections of Gelatinized Serum, Treatment of Recurring in 604
Heterophoria, A Prism Sequence for Measuring 324
Hobbs, Arthur G., M. D..... 270
Homatropin and Atropin, A Case of Idiosyncrasy to 5
Hotz, F. C., M. D..... 329
Hubbell, Alvin A., M. D..... 365
Hypermetropia and Hyperopia; A Plea for Correct Use of These Terms in Ophthalmology, Concerning the Terms Antimetropia and Anisometropia; Brachymetropia, Hypometropia in Place of Myopia 368, 552
Hyperopia; A Plea for Correct Use of These Terms in Ophthalmology, Concerning the Terms Antimetropia and Anisometropia; Brachytropia and Hypermetropia in Place of Myopia; Hypermetropia and 368, 552
Hypometropia in Place of Myopia; Hypermetropia and Hyperopia; A Plea for Correct Use of These Terms in Ophthalmology Concerning the Terms Antimetropia and Anisometropia; Brachymetropia and 368, 552
Hysteria, Asthenopia Dependent on Neurasthenia and..... 461

I

Idiosyncrasy to Homatropine and Atropine, A Case of..... 5
Infection from the Conjunctiva after Operations Involving the Anterior Chamber, A New Method of Preventing 160
Infection of the Eye, Experiments Upon the Endogenous..... 458
Influenza Bacillus, Conjunctivitis Due to 395
Inhaler, A New Chloroform..... 478
Injections of Sodium Iodate in External and Internal Diseases of the Eye, The Use and Therapeutic Action of Subconjunctival 508
Injury to the Eye, A Case of Tetanus Following 339
Insane, Changes in the Central Part of the Retina in the..... 339
Iridectomy as Shown by 1,200 Collected Cases, Value of..... 460
Iris and Dislocation of the Lens, Complete Separation of..... 255
Iris, Anatomical Examination of a Case of Primary Gumma of the.. 338
Iris and Cornea, Insufflation of the Air Into the Anterior Chamber, A New Treatment for the Method of Tuberculosis of the..... 303
Iris, With Presentation of Microscopic Specimens, Tuberculosis of the 331
Iris with Tuberculine, The Treatment of Tuberculosis of the..... 303
Iritis Serosa, Concerning..... 338

J

Jackson, Edward, M. D.....256, 417
Javal's, "Among the Blind," Emile. 432
Jennings, J. E., M. D..... 322
Jequiritol and Jequiritol Serum (Merck), A Note on the Use of.. 269

Jequiritol, Subconjunctival Injections, Notes on Some of the Newer Methods and Drugs in Ocular Therapeutics, Dionin, Methyl-Bromid of Atropin 574
Jones, Charles D., M. D. 313
Jordan, P. A., A. B., M. D. 478

K

Keiper, Geo. F., A. M., M. D. 367
Keratalgias After Injuries of the Surface of the Cornea, On Recurrent Formation of Vesicles on the Cornea and 555
Keratitis, Complicating Ophthalmia Neonatorum, Interstitial 365
Keratitis Occurring in Measles, Concerning the Superficial Punctate Exanthematous 604
Keratitis, Probably Rheumatic in Origin, Two Unusual Forms of... 522
Kipp, Charles J., M. D. 13

L

Lachrymal Canaliculus, Mucocele of the Left Inferior 147
Lachrymal Sac as a Prophylatic Measure in Septic Infections, in Occupation Injuries to the Eye, Extirpation of the 394
Lachrymal Sac, For the Extirpation of the 554
Lanceolatus Without a Perforating Wound of the Eyeball, Panophthalmitis from Infection with the Micrococcus 61
Lauder, Edward, M. D., C. M. 202
Le Fever, C. W., M. D. 530
Lens, Complete Separation of Iris and Dislocation of 255
Lenses, Periscopic 556
Lens in a Man Forty-six Years Old, Complete Absorption of an Injured Crystalline 367
Lewis, Eugene Richards, M. D..22, 111
Lid Margins, The Treatment of Diseases of the 603

M

Macroscopic Specimens, a Simple and Convenient Method for the Mounting of 11
Macula, The Ophthalmoscopic Examination of the 256
Magnet Operations, One Hundred and Fifty 26
Marple, W. B., M. D. 493
Malone, Wilson Preston, M. D. 262
Measles, Concerning the Superficial Punctate Exanthematous Keratitis Occurring in 604
Medulla Oblongata, Refraction Movements of the Eye, by Irritation of the 456
Medulla, With Special Reference to the Ocular Symptoms, The Symptoms Produced by Diseases of the Pons and 454
Mental Derangement Which is Occasionally Developed in Eye Hospitals 557
Methyl Alcohol, The Toxicity of.. 34
Micrococcus Lanceolatus Without a Perforating Wound of the Eyeball, Panophthalmitis from Infection with the 61
Mitchell, S., M. D. 275
Molluscum Contagiosum of the Ocular Conjunctiva 457
Morton, H. McI., M. D. 11
Mounting of Macroscopic Specimens, A Simple and Convenient Method for the 11
Moulton, H., M. D. 157
Mucocele of the Left Inferior Lachrymal Canaliculus 147
Muscles Appearing After a Blow on the Skull, Paralysis of External Recti 202
Muscles, Deficient Dynamics of the Extra-Ocular 530
Muscles, Idiopathic Myositis Involving the Extra-Ocular 471
Muscle Study in the Light of Neuricity, Tonicity and Contractility.. 1
Myopia, Astigmatism of the Cornea and Central Choroiditis in Myopia 603
Myopia Operations, A Further Note on 395
Myopia Operations, A Note Concerning the Statistics of 337
Myositis Involving the Extra-Ocular Muscles Idiopathic 471

Myotics, A Plea for a More Extended Use of..... 383

N

Neurasthenia and Hysteria, Asthenopia Dependent on..... 461
News Items.....52, 97, 134, 186, 307, 409, 463, 513, 566

O

Occupations in Time Affect the Cylindrical Curvature of the Eyeball? Will Certain 426
Ocular Symptoms, The Symptoms Produced by Diseases of the Pons and Medulla, with Special Reference to the 454
Ophthalmia Neonatorum, Interstitial Keratitis, Complicating..... 365
Ophthalmic Cases I have Seen, Some 255
Ophthalmology, The Correst Use of Terms in 480
Ophthalmometer in Determining Errors of Refraction, The..... 6
Ophthalmoscope, A Stereoscopic Ocular for My "Reflex-free"..... 460
Optic Nerve, Dislocation of the.... 399
Optic Nerve, Ophthalmoscopic Diagnosis of Hemorrhages in the Sheath of the 211
Optic Neuritis Complicating Whooping Cough 557
Optic Neuritis in Which Vision was Almost Extinguished, But Completely Restored, A Case of Syphilitic Orbital Periositis and..... 329
Ossification of the Choroid and Vitreous, A Case of..... 483

P

Panas, Professor, Obituary..... 403
Panophthalmitis by the Method of Van Milligen, A Clinical Note on the Treatment of..... 119
Panophthalmitis from Infection with the Micrococcus Lanceolatus Without a Perforating Wound of the Eyeball 61
Papillae in the Normal Conjunctiva, True 457
Papilloma of the Cornea..... 496
Paraffin to Secure a Prominent Stump after Enucleation of the Eye, Implantation of a Ball of Solid 117
Paralysis, Abducens 560
Paralysis of Accommodation and of the Soft Palate Following Mumps 454
Paralysis of External Recti Muscles Appearing After a Blow on the Skull 202
Paralysis of Traumatic Origin, An Uncomplicated Fourth Nerve.... 424
Peterman, H. E., M. D..... 148
Perimeter, A Deviometer Attachment to the Skeel..... 584
Perimeter, With Electric Transillumination of the Mires, A Modification of the 111
Perioscopic Lenses 556
Periostitis and Optic Neuritis in Which Vision Was Almost Extinguished, but Completely Restored, A Case of..... 329
Pfingst, Adolph O., M. D..... 7
Phillips, William Linton, M. D.... 5
Pink-Eyed Negroes..... 255
Pons and Medulla, With Special Reference to the Ocular Symptoms, The Symptoms Produced by Diseases of the 454
Posey, Wm. Campbell, M. D..... 65
Prism-Sequence for Measuring Heterophoria 324
Pseudo-Glioma Retinæ, Contribution to the Study of the Differential Diagnosis Between Glioma and... 94
Pseudo-Torticollis with Abnormal Associated Movements of Head and Eyes, Report of a Case of.... 22
Ptosis, An Unusual Case of..... 481
Ptosis, Concerning Some Modifications of the Operations for..... 56
Ptosis of the Left Eye, Operated Upon with Most Satisfactory Results, According to the Method of Dr. Gruening or Gillett de Grandmont 493
Pupil According to Measurement Made in the Clinic, The Normal Size of the 304
Pyle, Walter M., M. D..... 324

R

Refraction, Changes in 114
Refraction, The Ophthalmometer in Determining Errors of..... 6
Retinae, Contribution to the Study of the Differential Diagnosis Between Glioma and Pseudo-Glioma 94
Retina, with Cases, Pathology of and Prognosis in Glioma of the.. 342
Retina in the Insane, Changes in the Central Part of the..... 339
Retina, On Sclerosis of the Choroid with Secondary Degeneration of the 558
Retina, The Pathology of Idiopathic Detachment of the 341
Retina, Subconjunctival Injections of Sodic Chlorid in Detachment of the 585
Retinal Detachment, A New Operation for 433
Retinal Image, The..... 313
Retinal Tumors, Intraocular Tuberculosis in Children, and Remarks on the Diffential Diagnosis Between Tuberculosis and 302
Retinitis, Concerning the Disappearance of the Lesions in Circinate... 71
Retinitis, with a Zonular Scotoma, Anatomical Examination of an Eye Affected by Pigmentary..... 397
Risley, S. D., M. D..... 114

S

Salicylate of Sodium in Large Doses in Inflammatory Eye Diseases, The Value of 55
Salicylates in Uveitis, The Therapeutic Value of Large Doses of the 10
Sarcoma of the Choroid in a Child 317
Savage, G. C., M. D.....1, 515
Schweinitz, de, G. E., A. M., M. D. 71
Sclerosis of the Choroid with Second Degeneration of the Retina on 558
Shadow Test, The Systematic Use of Cylinders in Making the.... 420
Silver Salts, With Special Reference to Some of Their New Organic Forms, The Action on Mucous Membranes of 270
Skiascope, Double Hand..... 322
Skiascopy, The Term..... 33
Society Reports:
Academy of Ophthalmology and Oto-Laryngology 223
American Medical Association, Section on Ophthalmology.... 278
British Medical Association, Section on Ophthalmology..... 439
Chicago Ophthalmological and Otological Society.....45, 180, 219
Colorado Ophthalmological Society.....81, 178, 348, 539, 597
Detroit Ophthalmologic and Otologic Club 42, 547
Madrid, Section of Ophthalmology, International Medical Congress 351
Mexican Ophthalmological Society 78, 435
Philadelphia Section on Ophthalmology, College of Physicians of.....39, 88, 128, 171, 542, 588
San Francisco Society of Eye, Ear, Nose and Throat Surgeons 384, 452, 499
United Kingdom, Ophthalmological Society of the..... .....77, 125, 168, 349, 388, 549, 594
Washington (D. C.) Society of Ophthalmologists and Otologists 37, 345
Wills' Hospital Ophthalmic Society.....131, 299, 593
Sodium Iodate in External and Internal Diseases of the Eye, The Use and Therapeutic Action of Subconjunctival Injections of.... 508
Specimens, A Simple and Convenient Method for the Mounting of Macroscopic 11
Spring Catarrh 262
Sterescopic Vision, A Simple Test for 205
Stirling, Alexander W., M. D., C. M. 256
Strabismus, Capsular Ligatures in the Operation of..... 397
Subconjunctival Injections, Notes on Some of the Newer Methods and

Drugs in Ocular Therapeutics, Dionin, Methyl-Bromid of Atropin, Jequiritol 574
Subconjunctival Injections of Sodic Chlorid in Detachment of the Retina 585
Stump After Enucleation of the Eye, Implantation of a Ball of Solid Paraffin to Secure a Prominent.. 117
Suker, Geo. F., M. D.....368, 553
Suter, W. N., M. D..... 480
Synechia, Operative Treatment of Posterior 335

T

Taylor, Lewis H., M. D..... 6
Terms in Ophthalmology, The Correct Use of 480
Tendon Tucker, Improved 120
Tetanus Following Injury of the Eye, A Case of..... 339
Therapeutics, Dionin, Methyl-Bromid of Atropin, Jequiritol, Subconjunctival Injections, Notes on Some of the Newer Methods and Drugs in Ocular..... 574
Todd, Frank C., M. D..... 120
Toxins in Inflammations of the Eye, The Role of the..... 95
Traveler, Confessions of a..103, 139, 193
Trichloracetic Acid Treatment of Infective Ulcers of the Cornea..... 69
Tuberculosis in Children, and Remarks o n the Differential Diagnosis Between Tuberculosis and Retinal Tumors, Intra-Ocular..... 302
Tuberculosis Intra-Ocular, Danger of Enucleation 563
Tuberculosis of the Conjunctiva.... 417
Tuberculosis of the Iris and Cornea, Insufflation of Air Into the Anterior Chamber; A New Method for the Treatment of..... 303
Tuberculosis of the Iris with Tuberculin T. R., The Treatment of.. 303
Tuberculosis of the Iris, With Presentation of Microscopic Specimens 331
Tucker, Improved Tendon 120
Tumor of the Cornea-Scleral Margin, Report of a Case of Dermoid 7
Tumor of the Dura Mater Covered by the Cerebellum, Located in the Posterior Fossa of the Skull, Some of the Symptoms Resulting Therefrom 163

U

Ulcers of the Cornea, Trichloracetic Acid Treatment of Infective.... 69
Uveitis, The Therapeutic Value of Large Doses of the Salicylates in 10

V

Verhoef, Frederich Herman, A. M., M. D..... 205
Vernal Conjunctivitis 165
Vernal Conjunctivitis, A Case of.. 484
Vesicles on the Cornea and Keratalgias After Injuries of the Surface of the Cornea, On Recurrent Formation of..... 555
Vision, A Simple Test for Stereoscopic 205
Vision, The Physical Aspects of a Theory of Color 63
Vitreous, A Case of Ossification of the Choroid and..... 483
Vitreous by Hypodermic Injections of Gelatinized Serum, Treatment of Recurring Hemorrhages of the. 604

W

Weeks, John E., M. D.....
Wernicke Hemianopsia Pupillary Reaction was Present, A Case of Unilateral Hemianopsia in Which the 13
Whooping Cough, Double Optic Neuritis Complicating 557
Wilder, William H., M. D.....274, 331
Wintergreen, Toxic Amblyopia From Oil of 25
Wood, Casey A., M. D.....269, 428
Wounds of the Eye, The Diagnosis, Prognosis and Treatment of Perforating Infected 304

Y

Yohimbin: A New Local Anesthetic 428

Z

Zentmayer, Wm. T..... 119

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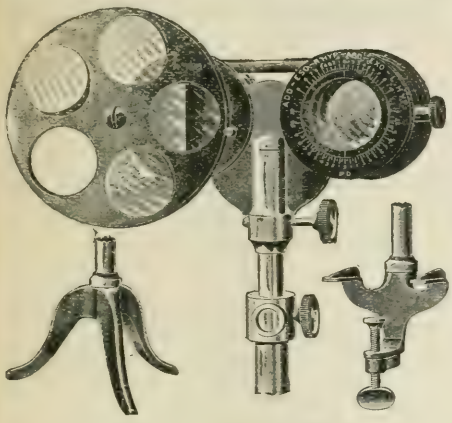

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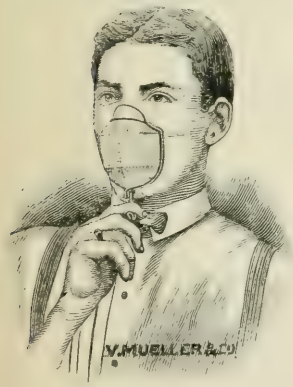

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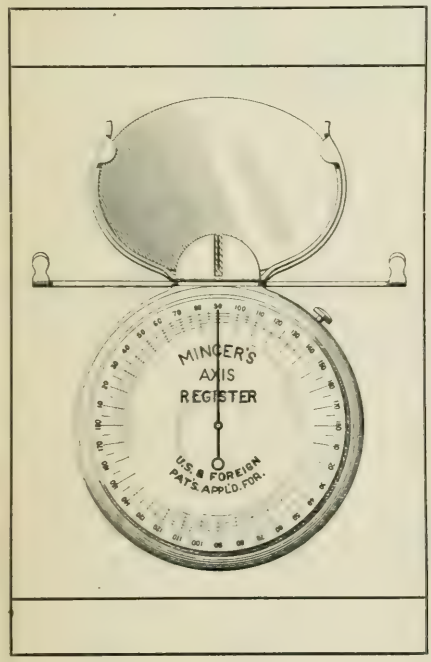

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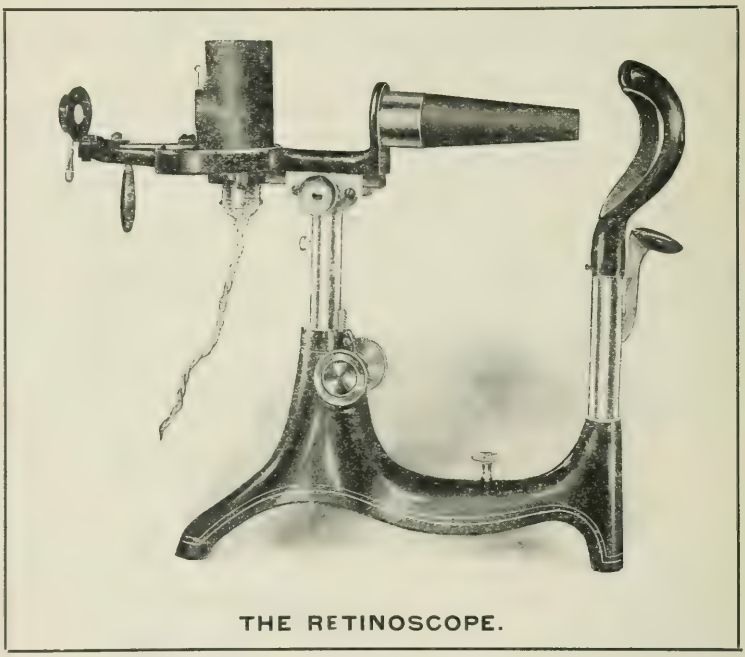

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